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Chrysippus on the Hierogamy of Zeus and Hera

Abstract

The purpose of this article is to briefly discuss the philosophical premises of Chrysippus' allegorical interpretation of the hierogamy of Zeus and Hera. The present paper suggests that this infamous piece of allegoresis draws on certain basic ideas of Stoic cosmogony and embryogony. Thus, Chrysippus' allegorical interpretation of the sexual union of Zeus and Hera is shown to have a macrocosmic dimension and a microcosmic one: at the macrocosmic level the cooling down of fire by air symbolizes the generation of the whole universe, whereas at the microcosmic level the cooling down of fire by air symbolizes the generation of an individual soul. While in both cases the hot Zeus is cooled down by the cold Hera, Chrysippus' allegoresis is, thereby, suggested to bring out the latent sense of the Samos (or Argos) mural with a view to illustrating certain well-known ideas of Stoic physics.

Chrysippus' interpretation of the sexual union of Zeus and Hera belongs to one of the most infamous pieces of ancient allegoresis. The extravagance of this interpretation has even prompted some scholars to question the seriousness of Chrysippus' hermeneutical attempts. Thus, for example, A.A. Long in his seminal paper has expressed some doubts as to whether Chrysippus' was earnest in his allegorical interpretation of the Samos (or Argos) mural.[1] Such an assessment, nevertheless, does not sit well the testimonies that present Chrysippus' interpretation as a serious, albeit scandalizing, allegorical suggestion. Origen, who provides us with the most important testimony here, insists that Chrysippus "misinterprets" (παρερμηνεύει) the painting, but he clearly regards it as a serious hermeneutical attempt.[2] In a similar vein, Clemens Romanus[3] and Theophilus Antiochenus[4] consider Chrysippus to be in earnest, even if they abominate the view he advocates.

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[1] A.A. Long, *Stoic Readings of Homer*, [in:] A.A. Long (ed.), *Stoic Studies*, New York 1996, pp. 75–76.

[2] Origenes, *Contra Celsum*, IV 48 (= *SVF* II 1074 [J. von Arnim, *Stoicorum Veterum Fragmenta*, vol. I–III, Stuttgart 1968]). Where no English reference is provided, the translation is my own.

[3] Clemens Romanus, *Homiliae*, V 18 (= *SVF* II 1072).

[4] Theophilus Antiochenus, *Ad Autolycum*, III 8 (= *SVF* II 1073).

Finally, Diogenes Laertius, despite comparable indignation, is willing to acknowledge it "as being a contribution to physics" (ὡς φυσικήν), even if he acquiesces that Chrysippus distorts the myth, since he "fashions this story into something extremely shameful" (αἰσχροτάτην [...] ταύτην ἀναπλάττει ἱστορίαν).[5]

    Long's account has met with several cogent criticisms[6] and the preponderance of scholars are inclined to assume Chrysippus to have been serious in his reading Stoic ideas into the hierogamy of Hera and Zeus.[7] As it would be far more difficult to argue that his allegoresis should be regarded as an instance of Stoic "Euhemerismus" and/or "Apologetik,"[8] the present paper will deal neither with the "ethnographical"[9] nor with the "apologetic"[10] aspect of Chrysippus' allegorical interpretation of the hierogamy of Hera and Zeus. Given the fragmentary nature of the extant testimonies, it cannot be ascertained conclusively whether Chrysippus intended to demonstrate that the story should be taken as an ancient prefiguration of Stoic physics or whether he endeavored to exonerate its author from the charges of blasphemy. While in what follows I will rather suggest that Chrysippus interpreted the painting allegorically with a view to expounding Stoic

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    [5] Diogenes Laertius, VII 187 (= *SVF* II 1071). Translation by B. Inwood and L.P. Gerson (*Hellenistic Philosophy. Introductory Readings*, Indianapolis 1997, p. 109) slightly modified.

    [6] *Cf*. P.T. Struck, *Birth of the Symbol: Ancient Readers at the Limits of Their Texts*, Princeton 2004, pp. 279–282 and R. Goulet, *La méthode allégorique chez les Stoïciens*, [in:] G. Romeyer Dherbey, J.-B. Gourinat (eds.), *Les Stoïciens*, Paris 2005, pp. 112–118. See also T. Tieleman, *Galen and Chrysippus On the Soul: Argument and Refutation in the De Placitis, Books II and III*, Leiden 1996, pp. 220–225.

    [7] *Cf*. e.g. F. Buffière, *Les Mythes d'Homère et la pensée grecque*, Paris 1956, p. 152; J. Pépin, *Mythe et allégorie: Les origines grecques et les contestations judéo-chrétiennes*, Paris 1976, p. 349; D.E. Hahm, *The Origins of Stoic Cosmology*, Ohio 1977, pp. 62, 82 and 84 (n. 15); P. Gilabert, 'Eros i el seu paper en la Física de l'Estoïcisme Antic', *Itaca: Quaderns Catalans de Cultura Clàssica* 1 (1985), pp. 90–96; [The English version of this paper is available at: http://paugilabertbarbera.com:9080/PauGilabert/ang/Barra_ang.jsp?urlDoc=511]; R. Lamberton, *Homer the Theologian: Neoplatonist Allegorical Reading and the Growth of the Epic Tradition*, Berkeley 1986, pp. 210–211 (n. 191); J. Whitman, *Allegory. The Dynamics of an Ancient and Medieval Technique*, Cambridge 1987, p. 32; C. Blönnigen, *Der griechische Ursprung der jüdisch-hellenistischen Allegorese und ihre Rezeption in der alexandrinischen Patristik*, Frankfurt am Main 1992, p. 30; I., Ramelli, "Saggio integrativo. Breve storia dell'allegoresi del mito", [in:] Cornutus, *Compendio di teologia greca*, I. Ramelli (ed.), Milano 2003, p. 459; I. Ramelli, G., Lucchetta, *Allegoria*, vol. 1: *L'età classica*, Milano 2004, p. 112 and C. van Sijl, *Stoic Philosophy and the Exegesis of Myth*, Zutphen 2010, pp. 132–133. *Cf*. also *supra*, note 6.

    [8] *Cf*. e.g. M. Pohlenz, *Die Stoa. Geschichte einer geistigen Bewegung*, Göttingen 1970, p. 97 and P. Steinmetz, 'Allegorische Deutung und allegorische Dichtung in der alten Stoa', *Rheinische Museum für Philologie* 129 (1986), p. 27.

    [9] For such an account of Stoic hermeneutics, see e.g. F. Wehrli, *Zur Geschichte der allegorischen Deutung Homers im Altertum*, Borna–Leipzig 1928, pp. 52–64; A.A. Long, *Stoic Readings...*, pp. 68–84; G.R. Boys-Stones, *The Stoics' Two Types of Allegory*, [in:] G.R. Boys-Stones (ed.), *Metaphor, Allegory and the Classical Tradition: Ancient Thought and Modern Revisions*, Oxford 2003, pp. 189–216; R. Goulet, *La méthode allégorique...*, pp. 109–112 and C. van Sijl, *Stoic Philosophy...*, pp. 97–179.

    [10] I have argued against the existence of any apologetic dimension of Stoic hermeneutics in: M. Domaradzki, 'Theological Etymologizing in the Early Stoa', *Kernos. Revue internationale et pluridisciplinaire de religion grecque antique* 25 (2012), pp. 141–142; *cf*. also M. Domaradzki, 'From Etymology to Ethnology. On the Development of Stoic Allegorism', *Archiwum historii filozofii i myśli społecznej* 56 (2011), pp. 83–86.

cosmogony and embryogony, it is worth emphasizing that the ensuing reconstruction remains conjectural.

According to Origen, Chrysippus identified Hera with matter and Zeus with god, allegorizing the hierogamy in the following manner: "having received the seminal principles of the god, matter retains them within itself for [the purpose of] ordering the universe" (τοὺς σπερματικοὺς λόγους τοῦ θεοῦ ἡ ὕλη παραδεξαμένη ἔχει ἐν ἑαυτῇ εἰς κατακόσμησιν τῶν ὅλων).[11] Thus, Chrysippus interprets the painting in such a way that the goddess stands for the passive matter which absorbs the creative semen of god that generates the universe. One finds easily a corroboration of Chrysippus' allegorization in Stoic physics.[12]

We know that the Stoics distinguished between the passive and the active principle of the universe: "that which is acted upon" (τὸ πάσχον) was identified with "unqualified substance" (ἄποιος οὐσία), i.e., "matter" (ὕλη), whereas "that which acts" (τὸ ποιοῦν) was equated with "the reason" (λόγος) in the matter, i.e., "god" (θεός).[13] While the active and the passive principles are god and matter, respectively, Chrysippus' clearly interprets the votive image of Hera fellating Zeus as symbolically representing the genesis of the world: Hera is allegorized as the qualityless and receptive matter, whereas Zeus becomes the life-giving, seminal force that shapes the matter in conformity with his design. Importantly, this piece of allegoresis is supported by several etymologies put forward by the Stoics.

Chrysippus is reported to have derived Zeus' name from the fact that the god "gives life to everything" (πᾶσι δεδωκέναι τὸ ζῆν) whilst the accusative form Δία was derived by the philosopher from the fact the god "is the cause of everything" (πάντων ἐστὶν αἴτιος) and "everything is through him" (δι᾽ αὐτὸν πάντα).[14] A parallel testimony is provided by Philodemus, who relates that Chrysippus derived the name Zeus from the god's being the principle and the soul of the world, "in which all life participates" (τῇ τούτου μ[ετοχ]ῇ πάντα [ζῆν]), whereas the name Δία was derived from the god's being "the cause and master of everything" ([πάν]των αἴτ[ι]ος [καὶ κύ]ριος).[15] Finally, this etymological interpretation is also corroborated by Diogenes Laertius who relates that the Stoics derived the name Δία, from the fact that "all things are through him" (δι᾽ ὃν τὰ πάντα), whereas the name Zeus was derived from the fact that the god "is the cause of life, or permeates life" (τοῦ ζῆν αἴτιός ἐστιν ἢ διὰ τοῦ ζῆν κεχώρηκεν).[16] With regard to Hera, we must note

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[11] Origenes, *Contra Celsum*, IV 48 (= *SVF* II 1074).

[12] In what follows, I draw heavily on the following works: D.E. Hahm, *The Origins...*, pp. 59–82; P. Gilabert, 'Eros i el seu paper...', pp. 81–106; M. Lapidge, *Stoic Cosmology*, [in:] J.M. Rist (ed.), *The Stoics*, Berkeley 1978, pp. 163–180; R.B. Todd, *Monism and Immanence: The Foundations of Stoic Physics*, [in:] J.M. Rist (ed.), *The Stoics*, Berkeley 1978, pp. 139–155 and M. Pohlenz, *Die Stoa...*, pp. 75–81.

[13] Diogenes Laertius, VII 134 (= *SVF* I 85, II 299–300). Translation by A.A. Long, and D.N. Sedley, *The Hellenistic Philosophers*, vol. 1: *Translations of the Principal Sources with Philosophical Commentary*, Cambridge 1987, p. 268.

[14] Stobaeus, I 1.26 (= *SVF* II 1062).

[15] Philodemus, *De piet.*, 11 (= DDG 545b 12 = *SVF* II 1076).

[16] Diogenes Laertius, VII 147 (= *SVF* II 1021). While this etymology can be traced back to Plato (*Cra.* 396a7–b2), it is later embraced by such authors as the Stoic Cornutus (3.5–9 after C. Lang, *Cornuti theologiae Graece compendium*, Leipzig 1881) and Heraclitus the Allegorist

that the Stoics adopted the traditional etymological interpretation of Hera (Ἥρα) as air (ἀήρ).[17] Now, if Zeus is the ultimate cause of life and Hera is air, then the question arises how can the goddess stimulate the generation of divine semen that produces the world?

In order to answer the question, we must first stress that the name "Zeus" was only one of the numerous terms that the Stoics had for the ultimate cause of all life. With reference to this life-giving force, the Stoics used interchangeably such terms as "seed" (σπέρμα), "fire" (πῦρ), and "breath" (πνεῦμα).[18] Secondly and relatedly, we should also observe that the Stoics characterized fire as hot and bright, whereas air as cold and dark.[19] If now Hera is identified with cold air and Zeus is equated with hot fire, then the gods' intercourse may rather straightforwardly be interpreted as symbolizing the cooling down of fire by air. We can see, thereby, that Chrysippus puts forward a cosmological interpretation of the Samos (or Argos) painting: the cooling down of fire (Zeus) by air (Hera) results in the production of water (seminal fluid), which then generates the rest of the universe. Such a cosmogony is, indeed, presented by Diogenes Laertius, who reports the Stoics to have believed that:

> The cosmos comes into being when substance turns from fire through
> air to moisture, and then the thick part of it is formed into earth and
> the thin part is rarified and this when made even more thin produces
> fire. Then by a mixing from these are made plants and animals and

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(23.6 after D.A. Russell and D. Konstan, *Heraclitus: Homeric Problems*, Atlanta. 2005).

[17] Diogenes Laertius, VII 147 (= *SVF* II 1021). Juno (Hera) is identified with air also in *SVF* II 1066 (= Servius, *ad Verg. Aeneid.*, I 47) and in *SVF* I 169 (= Minucius Felix. Octav., 19.10). F. Buffière (*Les Mythes d'Homère ...*, p. 107) suggests that the Hera/air etymology goes back to Homer (*Il.* XXI 6). While Plato (*Cra.* 404c2) is definitely familiar with it, Cornutus (3.16–18) and Heraclitus the Allegorist (15.3) accept not only the etymology but also offer highly comparable allegorizations.

[18] For an identification of seed with "the primary fire" (τὸ πρῶτον πῦρ), see e.g. *SVF* I 98 (Aristocles in Eusebius, *Praep. ev.*, 15.14.2), for an equation of seed with "breath blended with moisture" (πνεῦμα μεθ' ὑγροῦ), see e.g. *SVF* I 128 (Eusebius, *Praep. ev.*, XV 20). In *SVF* II 1066 (= Servius, *ad Verg. Aeneid.*, I 47) Jove (Zeus) is equated with aether (i.e., fire), whereas in *SVF* I 169 (= Minucius Felix. Octav., 19.10) the god is interpreted as the heaven. In general, the Stoics' pantheistic view of god as an omnipotent force that permeates the whole of the universe made it natural for the philosophers to assume that there is in reality just one deity that only manifests itself differently. Consequently, the Pantheon of the traditional Greek gods and goddesses proved to be nothing more than a self-externalization of this one pantheistic deity (interchangeably referred to as *Pneuma*, *Logos*, Zeus, etc.). That is why in his famous *Hymn* (Stobaeus, I 1.12 = *SVF* I 537), Cleanthes characterized Zeus as "the Ruler of nature" (φύσεως ἀρχηγός) who is "almighty" (παγκρατής) and *therefore* "many titled" (πολυώνυμος). This view of god as having many powers and, correspondingly, many names, is testified by Diogenes Laertius (VII 147 = *SVF* II 1021) and Aetius (I 7.33 = *SVF* II 1027). As for Chrysippus, Stobaeus (I 79.1 = *SVF* II 913) reports the philosopher to have used terms such as Fate, *Pneuma*, *Logos*, Providence, Truth, Cause, Nature and Necessity interchangeably, whereas Diogenes Laertius (VII 135–136 = *SVF* I 102) relates the Stoics to have identified God, Intellect, Fate, and Zeus with one another, and to have assumed that god "is called by many other names" (πολλαῖς τ' ἑτέραις ὀνομασίαις προσονομάζεσθαι). I discuss the issue in: M. Domaradzki ('Theological Etymologizing...', pp. 125–148), where I also argue that the early Stoics' view of god entailed using etymology as a tool for deciphering the manifold manifestations of one and the same deity.

[19] Plutarchus, *De prim. fr.*, 948d–e (= *SVF* II 430).

the rest of the [natural] kinds (γίνεσθαι δὲ τὸν κόσμον ὅταν ἐκ πυρὸς ἡ οὐσία τραπῇ δι᾿ ἀέρος εἰς ὑγρότητα, εἶτα τὸ παχυμερὲς αὐτοῦ συστὰν ἀποτελεσθῇ γῆ, τὸ δὲ λεπτομερὲς ἐξαραιωθῇ, καὶ τοῦτ᾿ ἐπὶ πλέον λεπτυνθὲν πῦρ ἀπογεννήσῃ. εἶτα κατὰ μίξιν ἐκ τούτων φυτά τε καὶ ζῷα καὶ τὰ ἄλλα γένη).[20]

While Diogenes Laertius specifically acknowledges Chrysippus as one of the most prominent proponents of the doctrine,[21] somewhat earlier he also explains that the Stoics held that the turning of substance was actuated by god, "who is the seminal principle of the world" (σπερματικὸν λόγον ὄντα τοῦ κόσμου) and who "stays behind as such in the moisture, making matter serviceable (εὐεργόν) to himself for the successive stages of creation".[22] This account of the genesis of the universe in terms of a transformation of the elements accords nicely with Chrysippus' exegesis: the whole cosmos is created from fire (Zeus) and air (Hera) through water (semen) to earth (the world).[23]

Yet, apart from its macrocosmic dimension, the cooling down of fire by air can also be argued to have its microcosmic aspect. In the cosmogony just mentioned, god, who, as we have noted, is the seminal reason of the cosmos, is likened to "the seed contained in the seminal fluid" (ἐν τῇ γονῇ τὸ σπέρμα περιέχεται).[24] While the Stoics eagerly compare the generation of the world to animal procreation (so that the origin of the cosmos becomes very much like the birth of a living organism), they also perceive the cosmic *pneuma* as being analogous to the bodily *pneuma*. We know specifically that Chrysippus drew a parallel between Zeus and the world, on the one hand, and man, on the other, comparing providence (i.e., Zeus) to a human soul.[25] If the world's soul resembles a man's soul, then the generation of the universe must be very much like the generation of the soul, for in both

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[20] Diogenes Laertius, VII 142 (= *SVF* I 102). Translation by B. Inwood and L.P. Gerson, *Hellenistic Philosophy...*, p. 134. Chrysippus continued the biological model that Zeno employed in his cosmogony, see e.g. D.E. Hahm, *The Origins...*, pp. 82 and 156; R.B. Todd, *Monism and Immanence...*, pp. 148–155 and M. Lapidge, *Stoic Cosmology...*, p. 167.

[21] A parallel testimony on Chrysippus' belief in the transformation of fire through air to water and earth is provided by Plutarchus, *De Stoic. repugn.*, 1053a (= *SVF* II 579).

[22] Diogenes Laertius, VII 136 (= *SVF* I 102). Translation by A.A. Long, and D.N. Sedley, *The Hellenistic Philosophers...*, p. 275. *Cf.* also Stobaeus, I 20.1 (= *SVF* I 107). Aristotle has been shown as an absolutely crucial precursor to Stoic cosmobiology, see in this respect D.E. Hahm, *The Origins...*, pp. 34–48 and 70–78. *Cf.* also R.B. Todd, *Monism and Immanence...*, p. 144; M. Lapidge, *Stoic Cosmology...*, p. 168 and M.J. White, *Stoic Natural Philosophy (Physics and Cosmology)*, [in:] B. Inwood (ed.), *The Cambridge Companion to the Stoics*, Cambridge 2003, pp. 135–136.

[23] It has to be borne in mind that in the Stoics' monistic physical theory, the active and passive principles of the universe are actually two sides of the same coin. Thus, fire (i.e., Zeus, breath etc.) is the primary element (i.e., the self-generating seed) that actually transforms itself (i.e., "turns substance") into water and earth through air. *Cf. supra*, note 18.

[24] Diogenes Laertius, VII 136 (= *SVF* I 102).

[25] Plutarchus, *De comm. not.*, 1077e (= *SVF* II 1064). F. Buffière (*Les Mythes d'Homère...*, p. 142) rightly stresses (*ad loc.*) that "Zeus joue dans le monde le même rôle que l'âme dans l'homme". On the analogy between cosmogony and embryogony, see especially D.E. Hahm, *The Origins...*, pp. 60–82 and P. Gilabert, 'Eros i el seu paper...', pp. 87–106. *Cf.* also M. Lapidge, *Stoic Cosmology...*, pp. 169–170 and J. Whitman, *Allegory...*, p. 35.

cosmogony and embryogony, the interaction of hot fire and cold air brings about life.[26]

The Stoics maintained that the prerequisite for the generation of the soul was an exposure of the fetus' hot inner spirit to the outer air, whose temperature was significantly lower than that of the womb. Thus, Plutarch reports Chrysippus to have believed that every embryo is endowed with the "spirit" (πνεῦμα) which at birth changes into the "soul" (ψυχή) as it is "cooled down by air" (ψυχόμενον ὑπὸ τοῦ ἀέρος).[27] While already this source informs us that in order to account for the genesis of the soul the philosopher posited an etymological connection between the words "cold(ness)" (ψῦχος) and "soul" (ψυχή), several other testimonies also attribute to Chrysippus the conviction that the "spirit" (πνεῦμα) of the fetus becomes a "soul" (ψυχή) as it is exposed to this "cooling" (περιψύξει) at its birth.[28] If one also recalls that from Zeno onward, the Stoics equated the soul with the fiery *pneuma*,[29] then the generation of the soul transpires to be very much like the generation of the universe: at a child's birth air cools down the hot *pneuma* of the infant, whereas at the beginning of the world it cools down the hot *pneuma* of the universe. To put it in terms of Chrysippus' allegoresis, we might say that in both cases the hot Zeus is cooled down by the cold Hera: at the macrocosmic level the cooling down of fire by air symbolizes the generation of the whole universe, whereas at the microcosmic level the cooling down of fire by air symbolizes the generation of an individual soul.

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[26] For the cooling and, thereby also, vivifying function of air, see the testimonies which von Arnim included into the section on the genesis of the soul from the cooling of the *pneuma* (*SVF* II 804–808). Of special importance for our considerations are the testimonies provided by Plutarch (*SVF* II 806) and Hippolytus (*SVF* II 807), as they unequivocally attribute this doctrine to Chrysippus – *cf. infra*, notes 27 and 28.

[27] Plutarchus, *De Stoic. repugn.*, 1052f (= *SVF* II 806).

[28] For a connection between ψυχή and περίψυξις, see Plutarchus, *De Stoic. repugn.*, 1053d; Idem, *De prim. fr.*, 946c; Idem, *De comm. not.*, 1084e and Hippolytus, *Philos.*, 21 (= *Dox. gr.* 571.17). For a connection between ψυχή and ψύχω or ψῦξις, see Plutarchus, *De Stoic. repugn.*, 1052f and Origenes, *De prin.*, II 8.3. Plato associates (*Crat.* 399d10–e3) the word ψυχή with ἀναψύχω, whereas Aristotle associates (*De an.* 405b28–29) it with κατάψυξις.

[29] Thus, in *SVF* I 135 (= Diogenes Laertius, VII 157) the soul is characterized as πνεῦμα ἔνθερμον, whilst in *SVF* I 146 (= Epiphanius, *Adv. haeres.*, III 2.9) it is πολυχρόνιον πνεῦμα.

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How to Defeat a Bull?
On Aulus Gellius' *Noctes Atticae* XVII 20[1]

Abstract

In one of the chapters of the *Attic Nights* (*NA* XVII 20) Aulus Gellius relates one of his encounters with his teacher, the Platonic philosopher Taurus, who accuses the writer of paying too much attention to the linguistic aspects of Platos dialogues. Gellius, hard-core philologist that he is, completely disregards the masters ironic criticism of his approach and offers his readers a Latin translation of a passage from Pausanias speech at *Symposium* 180e-181a. The paper will attempt to analyse and elucidate the literary context in which the translation is presented not only within this particular chapter, but also in a broader spectrum of the Attic Nights understood as a coherent work.

Aulus Gellius is one of the unfortunate classical authors whose works are much more often *cited* than actually *read*. It would be difficult to find a modern scholar dealing with any aspect of Greek or Roman antiquity who has not heard the name of this 2nd century Latin writer. Most of us have even – often unknowingly – based our research in literature, history, law or philosophy on pieces of information deriving from his book. Yet it would be equally difficult nowadays to find a person who has in fact read the twenty books of the *Attic Nights* cover-to-cover[2]. The very idea might seem at first very unappealing, considering that Gellius' work has been often presented as secondary and unoriginal, a mere collection of quotations from earlier writers, and used accordingly. The *Attic Nights* shared the fate of so many other books which had been dissected into little pieces and then meticulously re-arranged into new collections of a different kind: editions of fragments and

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[1] I am grateful to professor Jakub Pigoń and to the anonymous reviewer for helping me to ameliorate this paper.

[2] E. Gunderson gives a paradoxical description of this situation: "To judge from the indices of books on Roman topics, Aulus Gellius is one of the most-read ancient authors. To judge from the contents of those same books, he is one of the least-read authors" (*'Nox Philologiae'. Aulus Gellius and the Fantasy of the Roman Library*, Madison 2009, p. 6).

testimonies[3], encyclopedias or dictionaries. This was of course a prerequisite for creating the entire apparatus of classical scholarship, but we should never forget at what cost it had been done: the authorial personalities of men like Athenaeus, Valerius Maximus, or Pliny the Elder, were exterminated in the process. Passages selected for inclusion in a new book were ruthlessly ripped out from the healthy tissue of their original context in an attempt at creating the most complete picture of a given subject, be it an edition of fragments or a monograph. Not much attention, if at all, was paid to the surroundings in which the quotations had been initially placed. The idea that there might actually be a deeper meaning conveyed by the use of this or that quotation by an author like Gellius – even if it crossed the minds of those diligent editors and lexicographers of the 19th century – was not expressed. On the contrary, quite often we find words of dislike and contempt for such a thoughtless and unoriginal writer. A good example of this attitude is Schanz's *Handbuch der Lateinischen Literatur*, where Gellius is called "eine gutmütige, aber kleinliche und pedantische Natur" and "ein Mann, der die verdorrten Blätter, nicht den blühenden Baum mit seiner Liebe umfasst".[4] A commonly repeated idea was also that there is only one thing for which we should be grateful to Gellius: namely that he preserved for us excerpts from 275 earlier writers.[5] Such a sourcebook cannot be disregarded – but still it is nothing more than a sourcebook.

In the second half of the 20th century a significant turn can be observed, started with the works of R. Marache[6] in the fifties. It was marked especially by the publication of L. Holford-Strevens' *Aulus Gellius* (London 1988), the first full-scale monograph of this author in English, and a highly recommendable one[7]. The scholars started to notice that Gellius should not be criticised so harshly, if not for

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[3] An illustration of such practice in the field of Platonic studies can be the collection by A.S. Riginos (*Platonica. The Anecdotes Concerning the Life and Writings of Plato*, Leiden 1976).

[4] M. Schanz, *Handbuch der Lateinischen Literatur* München 1896, p. 161, §609, duly kept in subsequent editions. I have found only one exception from the general trend of that period in a modest paper by T. Vogel, *De Noctium Atticarum A. Gelli compositione*, [in:] *Philologische Abhandlungen Martin Hertz zum siebzigsten Geburtstage von ehemaligen Schülern dargebracht*, Berlin 1888, p. 1–13). In his introduction Vogel casually observes that Gellius would want his book to be read for pleasure and not exploited in the way modern scholars do.

[5] I was able to trace this catchphrase back to 1844, when it appears in C.F. Bähr's entry on Gellius in the third volume of Pauly's original *Real-encyclopädie*. The notion might be earlier, but not much: late 18th-century commentators were usually dissatisfied with the random order of material in the *Attic Nights* (*varietas* intended by the author, we should add), but they did not yet deny the artistic value of the work. In earlier periods, from St. Augustine to Claude Saumaise, the book was unceasingly popular and had many very positive reviews. Common descriptions like "entertaining", "readable", or "eloquent", contrast sharply with what we have been used to read about Gellius over the last 200 years.

[6] In particular R. Marache, *La critique littéraire de langue latine et le dévelopement du gout archaïsant au II siècle de notre ère*, Rennes 1952 and *Mots nouveaux et mots archaïques chez Fronton et Aulu-Gelle*, Paris 1957, as well as the first three volumes of Gellius in the Budé collection (Paris 1967, 1978, 1989). Marache's interpretations are often disputable, but he was the first post-Enlightenment scholar treating Gellius again as a legitimate, skilful writer with something interesting to say.

[7] Second edition, revised and expanded, appeared under the changed and meaningful title *Aulus Gellius. An Antonine Scholar and his Achievement* (Oxford–New York 2003).

any other reason then simply because his approach is not very different from what we do in our own scholarly books and papers. What is more, if we pursue this train of thoughts and honestly compare Gellius with ourselves, we will inevitably have to conclude that he is one of the more readable scholarly writers, and certainly not as dull as some of the *Quellenforscher* who were so prone to attack him. Once we begin to read the *Attic Nights* not in search for encyclopedic knowledge but for the intellectual pleasure of meeting a fellow scholar, a real person who was in many respects similar to us, who shares our interests and our passion for learning, we can start asking different and much more engaging questions. This does not mean that we are not allowed anymore to skim Gellius' book and try to find there some arguments to support our thesis on this or that subject, which may be completely disconnected from the *Attic Nights* as a whole, but one must be cautious in the terms of public relations: denying that Gellius is an author in his own right is definitely regarded as *passé* in the 21st century. As postulated by S.M. Beall, "the next 'wave' of Gellian scholarship will include a cautiously speculative inquiry into the genesis of individual chapters of the *Attic Nights*. This investigation should not be restricted to source criticism, but should also try to relate the form of the chapter to Gellius' general aims and methods".[8] The remarks on *NA* XVII 20 offered below are intended to meet this expectation.

S. Beall himself has dealt with this chapter in an excellent study *Translation in Aulus Gellius*.[9] That the text should be taken into account as a piece of evidence in the field of translation studies is clear even if we judge from the title alone, which announces the content as "Verba sumpta ex *Symposio* Platonis [...] exercendi gratia in Latinam orationem versa".[10] Two main pieces of information which the reader acquires from the *lemma* are: 1) that there is a passage in Plato's *Symposium* written in a very elegant and skilful way; and 2) that this passage is translated into Latin. There were therefore attempts to analyse Gellius' translation and compare it with the Greek original by L. Gamberale[11] and P. Steinmetz,[12] but for a full treatment one should turn to Beall, who modestly expresses his hope "that these observations will supplement the work" of Gamberale and Steinmetz (note 4, p. 215), but actually he sets a whole new standard for interpreting the text, simply because he places his (very detailed) analysis in a broader and more *humane* context of the author's motivations. Still, Beall does not investigate thoroughly the structure of the entire piece, focusing on the translation alone, and therefore he leaves much to say about, as he postulated himself, the genesis of this individual chapter, which consists of much more than just the juxtaposed Greek and Latin passages.

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[8] S.M. Beall, 'Aulus Gellius 17.8: Composition and Gentleman Scholar', *Classical Philology* 94 (1999), p. 55. Dozens of interesting papers and books on various aspects of the *Attic Nights* have appeared since then, many of them indeed offering entirely new, holistic interpretations of individual chapters.

[9] S. Beall, *Translation in Aulus Gellius*, "The Classical Quarterly" 47 (1997), p. 215–226.

[10] "Words taken from the *Symposium* of Plato [...], translated into Latin for the sake of practice" (all translations and paraphrases are mine).

[11] L. Gamberale, *La traduzione in Gellio*, Roma 1969, p. 155–160.

[12] P. Steinmetz, *Gellius als Übersetzer*, [in:] C.W. Müller, K.W.J. Sier (eds.), *Zum Umgang mit fremden Sprachen in der griechisch-römischen Antike*, Stuttgart 1992, p. 201–211.

Another group of scholars whose attention could be easily attracted even by the title alone are those dealing with Platonic studies. For example, there is an exhaustive commentary on this chapter in a book by M.L. Lakmann about the 2nd century A.D. Platonic philosopher Calvenus Taurus.[13] Lakmann does not take into account our author's literary pretence and treats *NA* XVII 20 as a simple factual report about Gellius' meeting with Taurus, which is perfectly understandable, considering the scope of her work. We will hopefully see below how conclusions of this kind can be either enriched or proven less probable, in one word: refined, when we map on them the part of the story that is told by Gellius-the-author, and not only Gellius-the-character.

Apart from the quoted Greek passage and its translation, the chapter contains a whole narrative, albeit short, in which we accompany the young Gellius, at the time an "exchange student" in Athens, to a "graduate seminar" of the philosopher Taurus, in which Plato's *Symposium* is being discussed. Gellius loosely bases many chapters of his book on his own biography, or at least places the events in realistic circumstances.[14] It seems that he has just finished a typical curriculum of rhetorical studies in Rome which entitled him to try and make a name among erudite circles. He travelled to Greece[15] which was *the* place to get in touch with all the significant teachers of philosophy, and a rather obligatory point in the agenda of an aspiring *dilettante* scholar.

The meeting is described as "diatriba", the same word as in *NA* I 26, where Gellius relates another anecdote set in an identical context: "Interrogavi in diatriba Taurum, an sapiens irasceretur". J. Dillon asserts that the lessons were "obviously formal sessions, at which the works of Plato were read and studied, with commentary from Taurus".[16] From the quoted conversation we can infer

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[13] M.L. Lakmann, *Der Platoniker Tauros in der Darstellung des Aulus Gellius*, Leiden 1995, p. 165–178.

[14] A multi-faceted summary of this aspect of the *Attic Nights* is offered by L. Holford-Strevens in 'Fact and Fiction in Aulus Gellius, *Liverpool Classical Monthly* 7 (1982), p. 65–68 (on this chapter in particular see p. 66), and, more broadly, in the same author's *Aulus Gellius. An Antonine Scholar...*, p. 65–72.

[15] For the phenomenon see a recent study by J.A. Howley, which even took its title from this chapter of Gellius (commented briefly on p. 170–171): *'Heus tu, rhetorisce': Gellius, Cicero, Plutarch, and Roman Study Abroad*, [in:] J.M. Madsen, R.D. Rees (eds.), *Roman Rule in Greek and Latin Writing: Double Vision*, Leiden 2014.

[16] J. Dillon, *Orality in the Later Platonist Tradition*, Thomas Taylor Lecture at the Prometheus Conference in July 2011, p. 9, published at "Academia.edu". Lakmann (*Der Platoniker Tauros...*, p. 166) expressed the same opinion, but one little difficulty in her interpretation is that, apart from external evidence, she also relies on the form *legebatur* in support of this view. However, Gellius uses this form in situations which are unquestionably singular and non-repetitive, for example in *NA* III 1: "in area [...] cum Favorino philosopho ambulabamus, atque ibi inter ambulandum legebatur *Catilina* Sallustii, quem in manu amici conspectum legi iusserat" – Favorinus suddenly noticed that someone was carrying a book and he asked for it to be read aloud. A much more interesting question which we can ask while looking at this word is *who* is actually reading the book. Theoretically it might be the teacher himself, or one of the participants, just as it normally happens in our own classrooms. A more convincing interpretation, however, is to give the passive form a more precise meaning and imagine a dedicated slave assisting with all the technical aspects of the class and reciting the text. For the presence of *lectores* in erudite conversation see a concise survey by R.J. Starr, 'Reading Aloud: 'Lectores'

that Gellius does not really belong there; for example, in §4 Taurus addresses Gellius with a provocative "Heus, tu, rhetorisce!",[17] which clearly puts us in the middle of the famous ancient controversy between philosophy and rhetoric. This is further developed by the mention of "rhetores vestri" (§5), as well as the good piece of advice that Gellius should not only pay attention to the niceties of Plato's wording, but rather focus on the meaning of the passage (§6).[18] We should remember, however, that no matter how aggressive – or just playful – Taurus may sound, it is *Gellius* who put these words into the philosopher's mouth. It is indicated already at the very beginning of the chapter, where the word "verba" is repeated *four* times in the span of a couple of lines, additionally strengthened with varying pronouns: "verba illa", "ea verba", "verba haec", "haec verba". It appears twice in the title alone. These "verba" seem to surround, even suffocate the Greek quotation: "words, words, words – this is what is important here", Gellius seems to insist. If Taurus praises the passage of Plato in the middle part of the chapter, then he does not have the pride of place, because Gellius informed us already in §2 that he loved Pausanias' words so much that he learned them by heart – it is only afterwards that the teacher interrupts the recitation and comments on the artistic features of the text. This commentary was apparently not necessary for Gellius, who knows his way about literature.

Taurus-the-teacher is the master in his own classroom and may have some power over Gellius-the-student – but doubtlessly Gellius-the-author has nearly infinite power over Taurus-the-character of the *Attic Nights*. This becomes even more striking if we remember that the original conversation in Taurus' class must have taken place in Greek, and not in Latin, as we read it. Therefore we have even no way to assess how much Taurus is left in Taurus' comment quoted here. We have a couple of traces of the original Greek: the word "rhetorisce!" is instantly explained as Taurus' own and specific way of addressing Gellius; ἐνθύμημα, elsewhere in the *Attic Nights* spelled with Latin letters, here interestingly appears in Greek and apparently in its most general Greek meaning (just like its diminu-

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and Roman Reading', *Classical Journal* 86 (1991), p. 337–343.

[17] "Hey, you, wannabe orator!"; Gellius subsequently explains that Taurus used to call him this way "existimans [me] eloquentiae unius extundendae gratia Athenas venisse" – "because he believed that I came to Athens in order to further study rhetoric alone" (or, as Howley nicely puts it, "for the sake only of beating my eloquence into shape" (*ibidem*, p. 171).

[18] A remark which not only does not bother Gellius at all, but makes him all the more eager to provide the readers with his Latin translation. It is very important to underscore that this translation was not meant to help anyone understand the meaning of the Greek passage; an educated Roman reader did not need such help. To a certain extent we can believe Gellius when he says that he did this "exercendi gratia", for which *cf*. Pliny the Younger, who enumerates benefits coming from such an exercise in a letter to his friend Fuscus (VII 9, 2): "Quo genere exercitationis proprietas splendorque verborum, copia figurarum, vis explicandi, praeterea imitatione optimorum similia inveniendi facultas paratur; simul quae legentem fefellissent, transferentem fugere non possunt. Intellegentia ex hoc et iudicium adquiritur." However, if the translation is meant to be published, as it is the case in our chapter, its value can only be appreciated by a bilingual public who knows and understands the original. For a more detailed discussion of this topic see Beall, *Translation*. . . and my less specialist 'Translation Criticism in Ancient Rome. Aulus Gellius, *Attic Nights*', *Przekładaniec*, Special Issue 2013, p. 71–86 [transl. of 'Krytyka przekładu w starożytnym Rzymie. Aulus Gelliusz, *Noce attyckie*', *Przekładaniec* 21 (2010), p. 38–54].

tive form in VII 14, 4); "rhetorum", spelled, on the contrary, with Latin letters
and used in the meaning of the expected Latin "oratorum"; a syntactic hellenism
"Habesne dicere?", regularly used by Gellius elsewhere in Greek-speaking con-
texts, and finally "ὁδοῦ πάρεργον", which does not really have a Latin counterpart
acceptable for Gellius, considering that *obiter*, a non-literary word,[19] not a single
time appears in the *Attic Nights*. However, these Greek echoes may have been as
well inserted into the text by Gellius while formulating the passage in Latin. They
are merely adornments indicating that the speaker in §4–6 is Greek and reminding
us that we are in Athens. In general, the phrasing of the passage is entirely Latin,
and probably composed by Gellius from scratch – even if it more or less closely
reflects Taurus' actual thought.

S. Beall has offered a colometric arrangement of the Greek quotation and its
translation by Gellius. I believe that the entire chapter can be arranged in a sim-
ilar way, but instead of trying to show it on paper[20] I suggest that the reader
recites it ten or fifteen times in a row, using the restored pronunciation of Latin
and the vowel lengths, if possible, with good phrasing and tempo. Certain obvi-
ous features of style emerge instantly, even without such a phonetic exercise: the
"ἐνθύμημα crebrum et coruscum et convexum" with its alliteration and polisyn-
deton, the phrase "brevibus numeris" corresponding to "crebrum", whereas "ro-
tundis numeris" / "aequabili circumactione" reflects "convexum". Other niceties
will follow.

Probably the most intriguing stylistic feature of Taurus' comment on Pau-
sanias' words is that whatever Taurus says about Pausanias can be applied to
Taurus' own words as well. It is one of Gellius' favourite literary tricks and an
impudent one: here it means basically that Gellius as a writer composing the little
speech of Taurus is as good as Plato constructing Pausanias' ἐνθύμημα. When
Taurus-the-teacher asks Gellius-the-student "Habesne nobis dicere in libris rheto-
rum vestrorum tam apte tamque modulate compositam orationem?", the answer
is not only Gellius' excellent *translation* of the Platonic passage,[21] but the very
words spoken by Taurus himself at this precise moment! When Taurus advises
that "Ad ipsa [...] penetralia [...] pergendum est", it can well be Gellius' wink
to the reader that he should take a good look and maybe focus on the middle
part of the chapter instead of the original passage and the translation of Plato
positioned on the sides, which actually serve to encapsule the *important* part.

By the time we reach §7 and Gellius' confession that Taurus' remark "non modo
non repressit, sed instrinxit etiam nos ad elegantiam Graecae orationis verbis La-
tinis adfectandam", everything should be perfectly clear: the "Graeca oratio" has

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[19] The word used to be regarded as post-classical, but is now attested in the Vindolanda
tablets. This means that it was used in the classical period colloquially. No wonder that Gellius-
the purist would not condescend to it. See *Decimus Laberius, The Fragments*. Edited with
introduction, translation, and commentary by C. Panayotakis, Cambridge–New York 2010, p.
448–449.

[20] Which I partially did in a commentary accompanying my Polish translation of this chapter in
Filolog na uczcie. Aulus Gelliusz, „Noce attyckie" XVII 20, [in:] A. Pacewicz (red.), "Colloquia
Platonica. *Symposion*", Wrocław 2015 (forthcoming).

[21] As justly observed by Beall, *Translation...*, p. 225.

a double meaning – it refers not only to Pausanias' words, but to those of Taurus as well, the Greek original of which is not known to us. The "verba Latina" are not only the translation of Plato, which Gellius could not resist to compose against his teacher's will, but actually the entire *caput*, which can itself be described as "brevibusque et rotundis numeris cum quadam aequabili circumactione devinctum". In this context, what a beautifully treacherous conclusion it is for Gellius to say: "non aemulari quidem, sed lineas umbrasque facere ausi sumus"! "I did not even *dare* to compete [with Plato], but I made a sketch and a shadow [of Plato's words]" – and note, too, the philosophical allusion.

In order to discover yet another hidden passage in this chapter, let us now take a closer look at the title. It is – as already mentioned – only partially accurate, because it does not take into account the narrative part of the chapter, which creates the context for Gellius' literary exercise. In order to explain this discrepancy we should first note that the titles were originally placed not as headlines of particular chapters, but all together in the form of a contents list at the beginning of the *Attic Nights*. It seems that Gellius wrote them more or less at the same time as he was writing the preface, i.e. in the last stage of his work, many years after he had started. We can easily imagine him scrolling through the chapters while giving them the final touch[22] and at the same time summarising their content in concise *lemmata*. This resulted in some inconsistencies between the title and the text, part of which might have been due to a simple omission, while others reflected an intended change of perspective or opinion.[23] In this particular case the explanation seems different. Even though the "biographical" events in the *Attic Nights* are by no means described chronologically, they can be regarded to a certain extent as the main "plot" of the book, at the same time constituting its the main setting, and they are often reflected in the chapter titles. It is not surprising therefore that Gellius normally copied the name of Taurus from the main text to the title: if we read *NA* I 26, II 2, VII 10, VII 13, XII 5 and XVII 8, we will find in the *lemmata* both the scholarly content of the chapter and an outline of the dramatical situation.[24] Interestingly however, sometimes the narrative context is missing from the *lemma*. Apart from the chapter under discussion, this is the case also in I 9 and X 19. What the three chapters have in common is that all of them feature the philosopher Taurus *and* his very critical opinions on the students of rhetoric!

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[22] Often adding even a paragraph or two, which in a modern book could appear as a footnote.

[23] A systematic treatment of this subject is offered by G. Maselli, 'Osservationi sui lemmata delle *Noctes Atticae*', *Orpheus* 14 (1993), p. 18–39.

[24] There are two exceptions: XVIII 10, which is very unusual, because it features not only Taurus, but also Herodes Atticus, together with the sick (!) Gellius and an ignorant doctor – its theoretical content, i.e. the difference between the medical terms *vena* nad *arteria*, seems to be sufficiently investigated by modern scholars, but the scene itself should be definitely paid special attention; and XX 4, which I cannot yet explain clearly, but its atmosphere is somehow similar to X 19 (for which see below), and the *dives adulescens* with his passion for theatre cannot but make us think of Favorinus of Arelate – especially if the title says that "artificum scaenicorum studium amoremque inhonestum probrosumque esse". These two chapters require further investigation. Apart from them, Taurus appears also in XIX 6, for which the *lemma* is missing, and in IX 5, where only a short mention of him is appended at the very end of the chapter, probably as a "footnote" in the second redaction.

The titles indicate only the scholarly content which will be dealt with and which
at the first glance looks rather innocent: "Quis modus fuerit, quis ordo disciplinae
Pythagoricae, quantumque temporis imperatum observatumque sit discendi simul
ac tacendi" (I 9) and "Non purgari neque levari peccatum, cum praetenditur pec-
catorum, quae alii quoque peccaverunt, similitudo; atque inibi verba ex oratione
super ea re Demosthenis" (X 19).

Inside these two chapters, however, we meet a raging bull. In I 9, after pre-
senting the *ratio studiorum* of the Pythagoreans, Gellius quotes an opinion of
Taurus who contrasts the obediend and humble disciples of Pythagoras with mod-
ern (read: his own) students, who are arrogant, fastidious and always know better
than their teachers: „isti, qui repente pedibus inlotis ad philosophos devertunt,
non est hoc satis, quod sunt omnino ἀθεώρετοι, ἄμουσοι, ἀγεωμέτρητοι, sed legem
etiam dant, qua philosophari discant. Alius ait: 'hoc me primum doce', item al-
ius 'hoc volo' inquit 'discere, istud nolo'; hic a *Symposio* Platonis incipere gestit
propter Alcibiadae comisationem, ille a *Phaedro* propter Lysiae orationem. Est
etiam, inquit, pro Iuppiter! qui Platonem legere postulet non vitae ornandae, sed
linguae orationisque comendae gratia, nec ut modestior fiat, sed ut lepidior". In
X 19 it gets even worse: the chapter is entirely committed to a description of Tau-
rus' anger[25] against one of his students, who has recently changed his scholarly
interests from rhetoric to philosophy and then happened to behave in an immoral
way: "Incessebat quempiam Taurus philosophus severa atque vehementi obiurga-
tione adulescentem a rhetoribus et a facundiae studio ad disciplinas philosophiae
transgressum, quod factum quiddam esse ab eo diceret inhoneste et improbe".

A question arises: who might be the student who insists on beginning with
the *Symposium* and demands to read Plato not because he would like to live more
honestly, but because he wants to polish his style? The analogy with XVII 20 is
clearly visible. If this is – let us not be afraid to assume it – if this is Gellius, no
wonder then that he did not want to attract attention to the scene by referring
to it in the title of the chapter. Then further, who is the "quispiam" in X 19, the
one who has just turned from rhetoric to philosophy?[26] Is this a stock character,
or maybe is it someone much more concrete, someone to whom Taurus could
say, not for the last time: "ne illius quidem *Demosthenis vestri* sententiae tibi in
mentem venit"? Does it not sound familiar when Taurus speaks of a "sententia
[. . .] lepidis et venustis vocum modis vincta" which, if this were not enough,
"adhaerere memoriae tuae potuit"?

Holford-Strevens is inclined to regard our story in XVII 20 as less fictitious
than others, because "it is hard to believe that Gellius would so thoroughly give
himself away if he were making up a story about himself".[27] I agree that the story
is not made up, just as the stories in I 9 and X 19 are probably based on actual
situations. The difference is that in I 9 and X 19 Gellius does not show us openly

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[25] Curiously, one may wish to evoke I 26 with its "Interrogavi in diatriba Taurum, an sapiens
irasceretur".

[26] Such questions should be considered in the light of A. Vardi, 'Gellius Against the Professors',
Zeitschrift für Papyrologie und Epigraphik 137 (2001), pp. 41–54.

[27] L. Holford-Strevens, *Fact and Fiction* . . . , p. 66

his reaction to Taurus' criticism and therefore he stays undercover, dressed up as a "quispiam", or lurking in the second person plural. Holford-Strevens uses the examples of these chapters (supplemented with VII 10) to show that "where Taurus upholds the dignity of philosophy [...] Gellius does not subvert him".[28] In XVII 10, however, Gellius not only feels strong enough to contradict the philosopher, but also to do it in his own name; it is not by case that it happens in the *last* of the three chapters, which are spread equally throughout the work: in the first book, in the middle part and towards the end. Holford-Strevens believes that Gellius here, "in a naïve pride of artistry [...] drops his guard and tells the truth". To me it seems – considering the entire composition of the chapter – that Gellius' pride of artistry is not so naïve at all, and that he quite consciously decides to come out of the closet: third time's a charm. It is only in this sense that I can agree with Holford-Strevens that the translation from the speech of Pausanias "is the main point of the chapter":[29] it is a sign for the reader that Gellius has nothing to conceal anymore. It is a proclamation of a victory of "philology" over "philosophy" – at least in Gellius' own eyes.

We have not yet said anything about the passage from Plato's *Symposium* which is cited and translated by Gellius in this chapter. The quotation comes from the beginning of the speech of Pausanias, right after the idea of the two kinds of Eros has been introduced. Gellius' choice seems by no means to be random. In his first sentence he informs the reader – in Latin, of course – that he decided to memorise the words of Pausanias because he basically *loved* these *words* (note the very strong *prorsum*, "absolutely!"). This *amor verborum* is nothing else as φιλολογία. Gellius seems to declare officially that regardless of the entirely philosophical context of the chapter he enters this situation as a philologist. The opposition is maintained later not only by the wording of Taurus' remarks mentioned above (*rhetorisce!*, *rhetorum vestrorum*) and by the great care taken by Gellius in composing the entire piece, but also by the lexical attempts to take over Plato and present him not as a philosopher but as a speaker: the repeated phrases *oratio Platonica* in and *oratio Platonis* in §7–8, while they can be interpreted simply as "Plato's way of writing", at the same time strongly suggest that in the eyes of Gellius Plato *is an orator*, that he produces speeches. From Gellius' point of view, Pausanias (or even Socrates, we might add) do not have much to say in the *Symposium*, they are just characters, subject to the decisions of Plato – the writer. Similarly in the *Attic Nights* Taurus has the authority to teach and give advice, but this authority is given to him by the grace of Gellius. Even if Taurus is the "Socrates" of this chapter, then Gellius – being at the same time the author and a character – is completely free to accept or reject Taurus' teaching. At the end of the chapter he decides to reject it openly and ultimately, but already in §4, when commenting on the nickname *rhetorisce* given to him by Taurus, Gellius

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[28] *Ibidem*, p. 67.

[29] *Ibidem*, p. 66 with a reference to chapter VIII 8, which unfortunately has not come down to us. It was entitled "Quid mihi usu venerit interpretari et quasi effingere volenti locos quosdam Platonicos Latina oratione". I imagine that in this chapter we had some "behind the scenes" of Gellius' preparation for his final confrontation with Taurus.

explains that the philosopher believed that he had come to Athens only to further study rhetoric, i.e., more specifically, to practice the art of writing. Initially the reader may intuitively add an unspoken contradiction: "he called me *rhetorisce* because he thought that I was only interested in eloquence, *but no*, I was not such a blockhead, I also cared about philosophy". However, by the end of the chapter and considering everything that was said above, we should have no doubt about Gellius' motivations: "Taurus said I was a wayward philologist, and you know what? He was right. I am."

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The Character of Cognition in Henri Bergson's Theory

Abstract

In the paper, I try to establish in a systematic manner the character of human cognition in Henri Bergson's theory. In the first part of the article, I examine if in this conception one is able to come into contact with the extended world. In this context, I analyze the function of image as well as the original character of human consciousness based on the category of duration. It is discussed whether the specificity of human memory and body make objective cognition of the external world impossible. Images composing the material reality turn out to overcome mental perceptual capacities. On the other hand, sensations coming from the extended world constitute a small part of the whole process in comparison to what memory adds to perception. I argue, however, that Bergson's idealistic theory of cognition goes beyond Kantian scheme of intuition because it relates directly to material reality.

Introduction

Henri Bergson, a French philosopher living at the beginning of XX century, created an original theory of cognition. In his considerations he rejects associationist interpretation of human consciousness whose capstone can be found in Hume's conception. According to that theory consciousness can be described by means of ideas and impressions linked by spatial relations. But if processes taking place in the mind were subject to laws of causality in the naturalistic sense, then human mind could be only passively subject to the operations taking place in the brain. However, the common experience says that in the mind there take place spiritual processes of creation which do not seem to be subject to the conditioning in naturalistic sense but create something qualitatively new. Thus, the French philosopher criticizes mechanistic vision of the world as well as the associationist conception of the consciousness. What character in those circumstances does cognition in Bergson's system possess?

In the article I will make the analysis of the relationship between the act of cognition and the action in the conception of this philosopher. On the one hand, it is claimed that impressions enable one to cognize the external world, and, even place oneself within things, which would imply that the mind is able to perceive

the surrounding reality in an objective manner. On the other hand, the richness and diversity of the world prove to overcome human capacity of cognition. What is more, the consciousness, on which the memory exerts its influence, also distorts the perception of objects. I shall discuss to what degree such perception possesses creative character, which means to what extent it is co-created by the mind.

In my work I shall make an attempt to show that philosopher overcomes – in any case in accordance with his own intention – idealistic as well as realistic limitations. I will use in that analysis some elements of Berkeley's conception of cognition which strongly influenced Bergson's manner of thinking. First, I shall explain what the function of the image in perception is. Then, I will distinguish between the rules governing the material world and the laws acting in the mind. I will present in this context the original character of human consciousness. In the next part of the article, I shall describe two crucial phenomena influencing human perception and I will consider the question if on the basis of Bergson's conception the objective cognition of reality is possible.

I. Berkeley's theory of perception

In Bergson's system the body of the perceiving individual and other bodies constitute a set of images placed on one plane and interacting with each other according to fixed laws.[1] It means that there are no things that would not be images at the same time. H. Bergson refers in that way to Berkeley's theory which claims that "esse est percipi" and the term "image" signifies what is just perceived. Human cognitive capacities as well as the circumstances of perception determine the existence of ideas-objects. That is the reason why the same status is attributed to the phenomenon of perception as well as to the phenomenon of existence.

In Berkeley's system the notion of sensation puts emphasis on the senses but it does not really permit to specify where the contents of sensations come from. On the basis of considerations concerning the character of perception, the modern philosopher comes to the conclusion that the world of extended objects does not really exist and it is God who makes us see images. Image does not constitute the true object of external world or our sight, which is composed of light and colours, but what is impinged on the eye's retina and which can be comprehended or imagined even by a blind person:

> Pictures therefore may be understood in a twofold sense, or as two kinds quite dissimilar and heterogeneous, the one consisting of light, shade, and colours; the other not properly pictures, but images projected on the *retina*. Accordingly, for distinction, I shall call those pictures, and these images. The former are visible and the peculiar objects of sight. The latter are so far otherwise, that a man blind from his birth may perfectly imagine, understand, and comprehend them.[2]

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[1] *Cf*. H. Bergson, *Matière et mémoire*, Paris 1959, p. 354.

[2] G. Berkeley, *The Theory of Vision Vindicated and Explained*, Cambridge 1860, article 51, pp. 94–95.

Ideas of sensation referring to sensible things can be separated into *minima sensibilia*, which are finite and constitute the lowest threshold of perception.[3] Space is composed of the *minima visibilia* or *tangibilia* and time is composed of the *minima temporalia*. Human mind links those ideas in a special order, so they can be united into one object. Bundles of ideas received through sensations or perceptions can therefore constitute separate things. The sharpness, size and location of visual images suggest the character of the objects of touch. Ideas of sight make us in that case envisage ideas of touch in which we have to do with constant size of things determined by the size of our body. However, G. Berkeley claims that the smallest entities of visual perception, *minima visibilia*, and of tactile perception, *minima tactilia* – are divergent. Between both kinds of ideas there is only a habitual connection constructed by human mind, which does not result from the objective relation between them.[4]

What seems extremely important is that only *minimum sensibile* – a simple sensuous perception – constitutes objective part of the experience because it takes place independently of the consciousness. The mind orders series of *minima* in ideas of objects with regard to the past events and to the future actions. It combines both kinds of experience and ascribes them to concrete objects. The manner in which they are connected in human mind possesses therefore a subjective character, directed at practical action. Still, such connection does not occur in the reference to the external space, but is determined by human reason and will.[5]

Berkeley argues that the notion of time can be described as a succession of moments unique for every individual. So there are no objects independent of the mind. But at the same time the collection of ideas of sensation must be standardized in the case where they form coherent and consistent ideas-things. First, in *Principles* it is claimed that those bundles of ideas correspond to physical objects in Lockean sense. But in *Dialogues*, Berkeley argues that the object is composed from a series of objects: "a continued series of visible objects succeeding each other",[6] it consists of the flow of ideas which follows the laws of nature.

In summary, perception does not possess a passive character nor there is an objective measure of time where particular substances would be placed, but on the contrary, every particular mind constitutes their own time of experience, it links *minima sensibilia* in an individual way. Therefore the relational nature of time is assumed, time constitutes the order of the succession of perceptions or ideas.

II. Do we cognize the material world?

The question is whether in Bergson's conception consciousness, likewise, creates images in an arbitrary way and whether they belong to the external reality.

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[3] *Cf.* D. Hynes, 'Berkley's Corpuscular Philosophy of Time, *University of Illinois Press* 4 (2005), pp. 339–356, pp. 347–348.

[4] G. Berkeley, *The Theory of Vision*..., article 57, pp. 102–103.

[5] *Cf.* A. Grzeliński, 'Wstęp', [in:] G. Berkeley, *Próba stworzenia nowej teorii widzenia i inne eseje filozoficzne*, Toruń 2011, p. 17.

[6] G. Berkeley, *Three Dialogues between Hylas and Philonous*, J. Bennett (ed.), London 2004, p. 21. *Cf.* G. Berkeley, *Treatise Concerning the Principles of Human Knowledge*, London 1734, article 38, pp. 21–22. *Cf.* D. Hynes, *Berkley's Corpuscular Philosophy*..., p. 350.

According to the French philosopher, the body and the nervous system constitute
the place where the movements received in the form of excitations are transmitted
and then returned in the form of reflex actions or actions dependent on will. The
objects impress vibrations on the nerves that are next transmitted to perception
centres. Human perception depends on those movements. It possesses a specific
character, it is not us who direct our attention to the chosen things, but it is
the things that act upon us and force us to perceive them. Images of perceived
things are thereby placed outside of the image of a receiving body. The brain just
manages perceptions caused by the material world and its states are defined as
the origin of action. But it is not the centre of reflection, because it is not able to
create psychic states.[7]

In Bergson's system it is not sensation like in Berkeley's theory, that constitutes
the origin of cognition. It is the action that is the starting point for impressions
as well as for perceptions. Its role is to show a possible influence of objects on
the body. The term "sensation" implies in that case the relation between senses
and the external object for it is based on a real action of objects on the body. A
human being receives therefore sensations independently of their will and activity.

In pure perception and sensation, a mind does not construct perceptions but
really sees the external world, it comes into direct and immediate contact with
objects. We are not in our body like a sailor on the ship because our vital needs
determine our perception. Furthermore, if perception is placed in things them-
selves, it means that a human being is entitled to transcendent cognition.[8] It is
obtained through pure perception: „[. . .] the material world is made up of ob-
jects, or, if you prefer it, of images, of which all the parts act and react upon
each other by movements. And that which constitutes our pure perception is our
dawning action, in so far as it is prefigured in those images". [„Ce qui constitue
le monde matériel, avons-nous dit, ce sont des objets, ou, si l'on aime mieux, des
images, dont toutes les parties agissent et réagissent par des mouvements les unes
sur les autres. Et ce qui constitue notre perception pure, c'est, au sein même de
ces images, notre action naissante qui se dessine"].[9]

But do – according to Bergson – images exist constantly or only when they are
perceived? It turns out that they co-create material world and are independent of
our perception: „It is true that an image may *be* without *being perceived*; it may
be present without being represented". [„Il est vrai qu'une image peut être sans
être perçue, elle peut être présente sans être représentée"].[10] The object is, in that
case, the image which exists in itself and at the same time it is just like we perceive
it. The philosopher claims that such understanding of the matter was accepted
also by common knowledge according to which: first, a thing exists independently

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[7] Regarding the character of matter and perception, see H. Bergson, *Matière et mémoire*, pp.
318–319.

[8] "[. . .] in pure perception we are actually placed outside ourselves, we touch the reality of
the object in an immediate intuition", H. Bergson, *Matière et mémoire*, p. 84. *Cf*. V. Delbos,
'Matière et mémoire: essai sur la relation du corps ŕ l'esprit', *Revue de métaphysique et de morale*
3 (1897), p. 354.

[9] H. Bergson, *Matter and Memory*, p. 74. H. Bergson, *Matière et mémoire*, p. 215.

[10] H. Bergson, *Matter and memory*, p. 27. H. Bergson, *Matière et mémoire*, p. 185

of a perceiving person; secondly, it is denied that it is completely different from the way we perceive it or that it possesses neither colour nor texture. These qualities are indeed located in material objects, they are not composed from subjective perceptions of the soul. The view that the secondary qualities are created by primary qualities and do not exist in themselves is in that way rejected.[11]

The only way to solve the issue how it happens that consciousness – whose states are qualitative – perceives objects in space possessing purely qualitative character, is to grant those objects qualities. The matter is subject to continuous internal vibrations. Among sensuous qualities occurring in representations and those representations understood as countable quantitative changes there is only a difference in the rhythm of duration, in the rhythm of internal tension. Physical phenomena retain in that way quantitative as well as qualitative features.[12]

Both matter and sensation possess in Bergson's conception the extended character. The perception does not therefore constitute a sort of contemplation, neither does it have a speculative character aimed at the disinterested cognition. The reality of extended objects is not reconstructed but experienced. Matter does not possess any mysterious power, we get to know those features of it that are essential for us in pure perception.

III. The category of image

The material objects regained secondary qualities such as colour and texture. That's why H. Bergson can use the category of image in his conception. He characterizes things as images and argues that perceived objects together with sensuous qualities such as smell or touch, do really participate in the material world. He does not change pure perceptions into representations arising in human mind independently of the external world, it is just the opposite, he includes them in that world.[13]

The term „image" does not constitute a copy of the absent original, on the contrary, it permits coming into direct contact with matter. A human being perceives it as a material thing which occurs in a system of images connected to each other via the laws of nature, it is the extension of the past images which gives birth to the future images. It constitutes in that way the crossing point where all modifications of the images in the world meet. Perceived thing is composed in that case from qualities and differs from a figment of imagination which does not stay in strict connection with other images. Finally, it turns out that there is only a difference of a degree between the existence of objects and their perception by a human mind.[14]

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[11] About rejection of the division on primary and secondary qualities *cf*. H. Bergson *Matière et mémoire*, avant-propos, p. 163. Compare with J. Searle's conception stating biological naturalism, where the secondary qualities come from the primary ones. See J.R. Searle, *Umysł na nowo odkryty*, transl. T. Baszniak, Warszawa 1999.

[12] *Cf*. H. Bergson, *Matière et mémoire*, pp. 319, 376–377.

[13] Regarding the function of images in human cognition *cf*. B. Gilson, *La révision bergsonienne de la philosophie de l'esprit*, Paris 1992, pp. 33–38.

[14] *Cf*. H. Bergson, *Matter and Memory*, p. 30. F. Worms, *Vocabulaire de Bergson*, Paris 2000, p. 29.

At the beginning of the „Matter and Memory", H. Bergson gives the definition of the image; by this term he understands the existence that is „more than that which the idealist calls a representation" [„plus que ce que l'idéaliste appelle une représentation"], but, still, something „less than that which the realist calls a thing, – an existence placed half-way between the 'thing' and the 'representation'." [moins que ce que le réaliste appelle une chose, - une existence située à mi-chemin entre la 'chose' et la 'représentation"'].[15] Images are thus placed among objects and their representations. In that case, do they participate in external things or are they things themselves? Can the image be comprehended as a material object in accordance with the tradition of naïve realism?

It seems essential at this stage to refer to the system of Kant who claimed that the matter shows us as an external phenomenon, yet, in fact, we do not know what it is in itself. He represents idealistic standpoint. External phenomena constitute the cause of perception, but still, on the basis of our impressions the existence of material things cannot be deduced. External objects cannot be located inside the mind so they cannot get included in the perception which constitutes the qualification of the apperception and belongs only to the consciousness. Nevertheless, on the basis of perceptions one may be tempted to draw a conclusion that there exist objects which correspond to them. Yet, it cannot be unambiguously stated whether the relation between perception and its cause possesses an internal or external character, whether our perceptions are really caused by external things or maybe just created by internal sense.[16]

While constructing his theory, H. Bergson makes an attempt to overcome difficulties raised in the conception of Kant who limited the capacities of human cognition in a drastic manner. At first sight, it seems that as regards the possibility of the cognition of matter, the French philosopher inclines towards the realistic standpoint.[17] He claims that perception possesses an impersonal character at its origin. Sensation makes reaching the material world possible. It permits us to determine the limit between our body and the other bodies, so between what is internal and external, as well as to act effectively on the environment. The body is the centre of the action, its role consists in choosing the appropriate reaction to

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[15] H. Bergson, *Matter and Memory*, pp. vii–viii. H. Bergson, *Matière et mémoire*, avant-propos, p. 161.

[16] *Cf*. I. Kant, *Krytyka czystego rozumu*, transl. R. Ingarden, Kety 2001, A368–A380, pp. 333–340. *Cf*. D. Leszczyński, *Realizm i sceptycyzm*, Wrocław 2012, pp. 144–150.

[17] According to the contemporary philosopher, J.R. Searle, the world of extended objects is in general cognitively accessible, we are able to cognize it in an intersubjective manner. It is therefore impossible that it constituted only the individual, isolated world of sensuous data. If sensuous data constituted only private experience of individuals, it would be impossible to talk about commonly existing material things. If there existed only bundles of sensations perceived by each person in an individual way – people would not be able to communicate effectively about general objects of reference. Neither could there exist language enabling communication concerning the external world. However, Searle's arguments supporting the existence of material external objects cannot concern Kant's conception where transcendental categories of cognition include at least the whole human species in a way that people order in a similar manner sensual data. Thanks to that common capacity they are able to communicate about information received from senses. *Cf*. J.R. Searle, *Umysł: krótkie wprowadzenie*, transl. J. Karłowski, Poznań 2010, pp. 272–273.

the received stimulus. Stimulation from outside causes sensations. Every sensation contains a certain quantity of impressions occurring in their respective order. This order comes from a sense organ stimulated by a material object. H. Bergson compares sense organs to a big keyboard on which a thing at the same time does its chord of thousands of notes, causing a huge number of simple sensations.[18]

As it is stated that images exist independently of our perception, the existence of external objects is confirmed. In that case pure perception possesses the objective character as far as it enables one to sense the external world and come into contact with it. H. Bergson goes even further, he claims that it allows entering into things: „Perception, in its pure state, is then, in very truth, a part of things".[19] In the further part of the article, I shall consider if such conception fulfils the postulate of the epistemological realism, if it does assume objective perception of external objects by human mind.

The objective cognition would mean that perception of the material world does not contain the constructivist element; it would consist only in receiving images from which the external reality is composed. It seems that in order to fully understand the nature of cognition in Bergson's theory, the character of human consciousness should be analysed.

IV. The character of human consciousness

In Bergson's theory the creative power [*force créatrice*] existing in the universe has a free and spiritual character. It organizes matter which, from its side, restrains its development. Their union gives birth – in consequence of the evolution – to different kinds of life:

— passive plants which are more like the matter than living organisms;

— animals possessing freedom of an unpredictable action even though their behaviour is first and foremost of the automatic character;

— human beings in whom matter reaches the maximum of instability. They constitute the climax of the creative force because they are able to make choice among different ways of behaviour. Consciousness breaks the chains of captivation by matter. A human being uses their body in order to act unpredictably, they invent language and create social complex structures.[20]

In the associationist conception, separate elements combine with each other in the brain in a mechanical manner, in accordance with the fixed rules. Yet, H. Bergson claims that only in the material world can particular states be distinguished clearly, then linked by means of laws and unified via the notion of space. Still, in the human mind a dynamic progress takes place. We should distinguish between a profound ego and superficial ego obeying the rules of language and action.[21] In the second case particular psychic states capable of being described by means of scientific rules can be distinguished, which is forced by practical requirements and

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[18] *Cf*. H. Bergson, *Matière et mémoire*, pp. 212, 273.

[19] H. Bergson, *Matter and Memory*, p. 68.

[20] H.M. Kallen, 'James, Bergson, and Traditional Metaphysics, *Mind* 90 (1914), pp. 219–221.

[21] Regarding two forms of memory as well as automatic and attentive recognition *cf*. H. Bergson, *Matière et mémoire*, pp. 225–235, p. 364. *Cf*. F. Worms, *Vocabulaire...*, p. 10.

a rational thinking. Laws in force in the material world manifest themselves in a habit, in which inextended consciousness adopts behaviours describable by means of spatial rules. However, only the shallowest part of consciousness - subject to the necessity of external reality – manifests itself in automatic reactions. In contrast, its profound part is not determined, since it can make a choice how to react to the received stimulus. The possibility of choice between different kinds of behaviour and the dependence on memory contribute to its original and unique character[22].

Bergson's conception of consciousness is based on the category of duration. Psychic causality possesses a purely dynamic character in the case where movement and change taking place in consciousness are not strictly connected with actions regarding the external world. From the standpoint of mechanics, a material point exists in the eternal present, yet, on the living bodies – and certainly on the conscious beings – it is memory that exerts its influence. That's why an abstract law of mechanics does not constitute the law of psyche.[23] There is thus a difference between a real duration (*durée réelle*) of the consciousness and the notion of time used in natural sciences where the abstract movement is not capable of explaining the real, experienced changes in their essence. It consists of a series of instantaneous positions, but it cannot fulfil the gaps between them.

It is not possible to return to the initial state in consciousness, not automatized, profound psychic states appear in mind only once and cannot be repeated. Furthermore, it is not possible to clearly distinguish previous and subsequent states, cause and effect within a dynamic memory influencing the functioning of the consciousness, as it would mean the juxtaposition of the particular elements, their mutual exteriority in space.[24] And space should be excluded from inextended mental life: „With memory we are in very truth in the domain of spirit".[25] The memory is not composed of particular states which can be juxtaposed; neither does it constitute a mixture of associations. On the contrary, it is one and indivisible. In that way, Bergson rejects determinism which does not only signify the prediction of the occurrence of a particular effect, but implies mechanical causality. Therefore a human ego constitutes the centre of indetermination.[26] For the mind the transition from the present state into a future one means the effort which possesses an unlimited possibility of realizations.[27] The consciousness is characterized by changeability, continuous flow of impressions, perceptions, thoughts; it is nourished by its past. Reconstruction of exactly the same impression in the mind is not possible, because the circumstances of our perception change as well as the mental state which modifies our interpretation of the same sensation.[28]

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[22] For more on the influence of memory on the consciousness, *cf*. J.-L. Vieillard-Baron, *Introduction: La durée et la nature*, [in:] J.-L. Vieillard-Baron (ed.), *Bergson, la durée et la nature*, Paris 2004, pp.15–17.

[23] *Cf*. H. Bergson, *Matière et mémoire*, p. 102.

[24] Regarding the character of space in Bergson's theory of cognition, *cf*. F. Worms, *Bergson ou les deux sens de la vie*, Paris 2004, pp. 88–93.

[25] H. Bergson, *Matter and Memory*, p. 320.

[26] *Cf*. F. Worms, *Bergson...*, pp. 148–151.

[27] *Cf*. M. Merleau-Ponty, *The Incarnate Subject*, transl. P.B. Milan, New York 2001, pp. 90–91.

[28] I purposely pass over the question of identity of a human being, for the reason that it exceeds

The same motives acting on an individual will not cause the same effects in their consciousness.

Against Hume's associationist psychology, experiences that interweave in our consciousness with recollections, cannot constitute portions of discreet impressions or ideas. Mental states combine and form the whole. Furthermore, multitude of psychic states is not quantitative but qualitative. Individual and unique character of human consciousness goes beyond material limits; it is not static but subject to continuous development. Present and past experiences alike take part in this process.[29]

There is, thus, a basic difference between immaterial soul and extension. However, H. Bergson does not maintain Cartesian dualism. Duration makes cooperation of the two heterogenic categories possible. Distinction between matter and mind should – in that case – be based not on the notion of space, but on the notion of time. Changes occurring in the extension possess infinitely fast rhythm of duration which differs from vibrations happening in the consciousness.[30] Still, material object vibrations constitute the repetition of relatively the same act. That is why laws can be applied in reference to the physical world.

V. The creative dimension of cognition

In scientific cognition only common contents of human experience are examined – such as spatial character of bodies. That is because they can be assumed as objective and fixed in laws. Therefore other traits of the external reality which seem relativized to individual perceptions are rejected.

This is how J. Locke operates for he is interested only in an objective sphere of cognition in his work. But G. Berkeley proceeds in the opposite way, he claims that the division into objective and subjective contents of experience is arbitrary. He analyses individual sphere of perceptions as well as the relation between activity of the will and human being's experiences. Such distinct perspective can be found also in Bergson's works.[31]

In direct sensuous experience, a thing can present itself in different situations in different dimensions, depending on the distance at which we are from it. The intellect must correct our perceptions, without its help we would think that every time we have to do with a different object. In reality, there is a huge difference between what we perceive and what we comprehend because the experiences are ordered in organized structures. In Bergson's conception this distinctness results from laws which are in force in the mind and in the material world. Consciousness joins notions to the perceptions and the other way round. Their contents are thus not only the result of sensuous experience but also of the intellect's operations. It is impossible to clearly distinguish between intellect's creations and the data

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the confines of this article.

[29] *Cf*. R. Ingarden, *Intuicja i intelekt u H. Bergsona*, transl. M. Turowicz, [in:] R. Ingarden, *Z badań nad filozofia współczesna*, Warszawa 1963, p. 18. *Cf*. N.C. Barr, 'The Dualism of Bergson', *The Philosophical Review* 6 (1913), p. 650.

[30] *Cf*. V. Delbos, *Matière et mémoire...*, p. 377.

[31] *Cf*. A. Grzeliński, *Wstep*, [in:] G. Berkeley, *Próba stworzenia...*, pp. 20–21.

coming from senses.

Mental structures permit consciousness to get free from the rhythm of the flow of things and to immerse in the past in order to make decisions concerning the present and the future. The recollection is able to influence the reception of sensation because it can come into contact with it and materialize. Memory is constantly present in the mind and enables perception of concrete states of things from different perspectives. It adjusts its stronger or weaker influence to the requirements of the situation. It links bigger or smaller quantity of recollections with present perception, depending on the character of the latter: „concrete perception [...] the living synthesis of pure perception and pure memory, necessarily sums up in its apparent simplicity an enormous multiplicity of moments." [„La perception concrète [...] synthèse vivante de la perception pure et de la mémoire pure, résume nécessairement dans son apparente simplicité une multiplicité énorme de moments"].[32]

Our particular perception constitutes, after all, the combination of pure perception and pure memory and consists of a huge quantity of moments which can be subject to bigger or smaller tension. The tension in a human being limits their perception, adapts it to vital needs, constrains the flow of recollections, emotions and desires that create indivisible multiplicity. Consciousness is able to keep itself in a dream state (e.g. while sleeping) or contract, thanks to memory, different moments of time – such as perceptions and memories – in the way to make use of them in action, in real life situations. It should be therefore considered if in Bergson's theory a person by means of perception is really placing themselves in things.

As he claims in another fragment of „Matter and Memory" the perception provides opportunity to bring out the right recollections from memory and use them in new behaviour.[33] Thus a look contains more than a perception of an object. Sensuous perception of the external world constitutes a small part of the whole process in comparison to what memory adds to present perception: „memory [...] covering as it does with a cloak of recollections a core of immediate perception, and also contracting a number of external moments into a single internal moment, constitutes the principal share of individual consciousness in perception". [„la mémoire [...] en tant qu'elle recouvre d'une nappe de souvenirs un fond de perception immédiate et en tant aussi qu'elle contracte une multiplicité de moments, constitue le principal apport de la conscience individuelle dans le perception; le côté subjectif de notre connaissance des choses"].[34] Bergson's theory of cognition can be characterized thereby as idealistic since the perception of the reality is co-created by consciousness. It means that a psychic state is not identical with a brain state neither is it subject to the laws of the material world.

There is also another reason why cognition of the material reality cannot have

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[32] H. Bergson, *Matter and Memory*, pp. 329–330. H. Bergson, *Matičre et mémoire*, p. 376.

[33] *Cf*. H. Bergson, *Matière et mémoire*, pp. 213, 293.

[34] H. Bergson, *Matter and Memory*, p. 25. H. Bergson, *Matière et mémoire*, p. 184. See also F. Worms, *Vocabulaire. . .* , pp. 29–31 where it is claimed that image shows external reality in an objective way.

an objective character. The body turns out to be "the mould into which my personality is poured, the sieve through which my ideas are sifted".[35] The perception of the external world is limited by human cognitive capacities. It cannot be forgotten that our self can act upon extension only by means of body and its main motive of the action is its protection. Perception does not therefore serve disinterested cognition but action.

Images composing the material world, are independent of us and overcome the capacities of human perception even if we united the past, the present and possible states of consciousness. We do see things for the influence that they can exert on us or depending on to what extent we are willing to affect the surrounding images. Hence the perception of the external world does not have an objective character but it is aimed at body protection and projection of its potential actions on the material world. Yet, objects do not create only a subjective bundle of sensuous data, which is proved by their intersubjective character. One receives a real stimulus from the external world but their decision concerning its meaning has a subjective dimension. Images constitute virtual parts of the external world which can become the object of perception. In that way, matter exists in an objective manner, independently of our perception, but the way of selecting and combining images by mind possesses a relative dimension based on the specificity of the body and the consciousness of the perceiving being. In sciences, material reality is fixed by laws which define how images act on one another. Yet, these laws permit to differentiate only particular fragments from the extended world's matter.

In Bergson's theory, images do not mean representations understood as mental copies of material objects. Things perceived by mind are called images rather than objects because human perception is not able to express the whole richness of relationships occurring among different parts of the matter. It appears that pure perception received from the external world takes on the subjective character in the human brain. The image does not represent a material object in an exact manner but that part which our body is able to see, always in some particular perspective.

Like in Berkeley's theory, one judges reality on the basis of what they are able to cognize and their perceptual capacities are fundamentally relational. But English philosopher's postulate "esse est percipi" is significantly modified. H. Bergson claims that there exists an external extended world. However, human mind simplifies it to the form of limited amount of images.[36] The consciousness picks out only singular links from the chain of relations. It occurs so just because it is not capable of getting to know the reality in its whole richness and diversity nor its dynamic character. Yet, on the other hand, memory acts upon the mind and adds to present images – the images of the past, enriching and modifying in that manner our cognition of the external reality.[37]

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[35] N.C. Barr, *The Dualism...*, p. 642.

[36] *Cf*. V. Delbos, *Matière et mémoire...*, p. 385.

[37] For more on the creative role of the memory in the process of cognition, see V. Jankélévitch, *Henri Bergson*, Paris 1959, pp. 108–112.

H. Bergson rejects in that way the possibility of disinterested cognition by the body of the material world. Those parts which are of no importance at a present moment, are enshadowed and flow imperceptibly. Perception would be in that case a choice of suitable images. They can be understood as parts of the material universe which exist independently of our mind and possesses a realistic character. But images comprehended as mind's perceptions constitute subjective snapshots of the matter adapted to human cognitive capacities.[38]

The conclusion could be drawn that in Bergson's conception, both realities– mental and extended– do not overlap. If we described memory as set A and body as set B, both sets would turn out to be partially disjoint. However, they do possess an intersection which takes the form of consciousness.

Conclusion

In the empiristic theory, relations have the status of exteriority; which is why particular impressions and ideas composing human experience do not influence each other. In Bergson's conception singular psychic states interpenetrate in the mind and do not stay in upfront determined relations towards one another. Thereby, the philosopher makes an attempt to free consciousness from the laws governing the external world.[39]

On the other hand, human being links particular ideas as a reaction to present events. The nature can be characterized as a set of phenomena staying in specific relations. It does not constitute the objective object of perception because mind takes a creative role in the process of cognition. Mind receives impressions from outside and then combines them in a subjective manner. What is more, it cannot be forgotten that it is impossible in consciousness [*conscience qui dure*] to fix a moment because relationships between consciousness and things are subject to continuous change; it means that in human mind there takes place the incessant train of succeeding ideas.[40]

The object is the idea linked by different kinds of relation with other ideas. It turns out that the relation of mind to an idea is identical with the relation of the mind to the perceived world.[41] A material thing is described as the image because it constitutes the consolidation of the moments or ideas, a snapshot of reality. The mind cuts out images from the whole of the matter in its individual way, in accordance with the body needs. That is why F. Worms defines Bergson's theory of cognition as pragmatic idealism. We do perceive those elements of things which are essential for our body, since we are not capable of perceiving all relations which simultaneously link a thing with other objects. What is more, a cognitive act has a relative character also because during this act consciousness contracts movements and qualities, adapting them to its own rhythm and unique character of memory. Consciousness chooses the suitable recollections from memory in order to efficiently participate in current actions. It combines particular moments in one

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[38] *Cf*. F. Worms, *Vocabulaire...*, p. 29.
[39] *Cf*. N.C. Barr, *The Dualism...*, p. 641.
[40] *Cf*. A. Grzeliński, *Człowiek i duch nieskończony*, Toruń 2010, pp. 109–110.
[41] *Cf*. M. Merleau-Ponty, *The Incarnate Subject*, p. 39.

perception. Every perception takes a certain duration, extends the past in the present participating in memory in this way. Yet, images do not exist only when they are perceived by mind. As already claimed, according to Bergson, the real external world exists.

His theory differs from Kant's conception of cognition where a human being is not capable of cognizing the world of noumena. Yet, in Bergson's system, the relative character of perception enables contact with matter – which constitutes the source of images. This solution goes beyond Kantian scheme of intuition because a man relates directly to material reality through pure perception. In that way, the popular experience according to which one is able to act upon external world and be also an object of its action, is not disregarded. H. Bergson attempts in a subtle way to defend the ontological realism.

It can be claimed that individual perception is characterized by moderate kind of idealism, but if the ontological character of the whole of matter is concerned, it has a realistic dimension. In Bergson's system, a human being keeps contact with the external world, receiving a continuous stimulus from it. On the other hand, the limited character of their mind enables them only a relative cognition. However, the French philosopher makes a hypothesis that if we rejected intellect in favour of intuition as well as got rid of habits such as spatial seeing of the extended world and, furthermore, if we conducted systematic research concerning functioning of consciousness and memory – the direct seeing of reality could be possible. But would that cognition be objective, unfalsified?

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Modal ontologic

Abstract

The paper deals with several problems concerning ontological notions of existence, possibility, well-foundation and fusion, used in reference to objects, in relation to contemporary semantic analysis of modal terms. The name *ontologic* was suggested by Polish logician Jerzy Perzanowski for theoretical or formal part of ontology. Term *modal ontologic* refers to the formal logical study of ontological concepts within the framework of propositional modal logic, especially a study of logical interconnections between modal concepts as applied to propositions or some proposition-like entities, on the one hand, and ontological concepts of existence, possibility, well-foundation and fusion used in reference to objects, on the other hand. It is shown, that a slight modification to contemporary semantic analysis of modal terms can capture some intuitions of Aristotle and his scholastic followers, especially about so-called modalities *de re*.

0. The history of modal logic begins with Aristotle who studied the logical interconnections between the necessary, the impossible, the possible and the permitted. However, in *On Interpretation*, he argues, that every single assertion, such as premise or conclusion in a syllogism, is either the affirmation or the denial of a single predicate of a single subject. Thus, for Aristotle, modal terms in fact modify this assertion or denial, therefore modalities are well-rooted in things. Hence, modal terms are closely related to ontological notions. The Megarians and Stoics also developed various theories concerning modality but in connection with propositional logic. So, for them, modal terms modify propositions or some proposition-like entities, situations or states of affairs. Contemporary attention paid to the formal properties of modal terms begins with the work of C.I. Lewis *Survey of Symbolic Logic*.[1] Contemporary semantic analysis of modal terms, known as possible worlds semantics, initiated by S. Kripke, follows Leibniz suggestion that a necessary proposition is one which holds not merely in the actual world but in every other possible worlds as well.[2]

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[1] See C.I. Lewis, *A Survey of Symbolic Logic*, Berkeley 1918.
[2] See S.A. Kripke, 'A Completeness Theorem in Modal Logic', *The Journal of Symbolic Logic* 24 (1959), pp. 1–14.

1. The name *ontologic* was suggested by Polish logician Jerzy Perzanowski for theoretical or formal part of ontology. [3] By *modal ontologic* I understand the formal logical study of ontological concepts within the framework of propositional modal logic, especially a study of logical interconnections between modal concepts, the necessary and the possible, on the one hand, and ontological concepts of existence, possibility, well-foundation and fusion on the other hand. There is one key difference in comparison to the standard approach. I assume, the concept of necessity as applied to propositions or proposition-like entities may be relativized to the objects in a fixed ontological universe. So, instead of contexts like *it is necessary that* $\mathbf{A}$, where $\mathbf{A}$ stands for a proposition, I will study contexts like *for* $\mathbf{b}$ *it is necessary that* $\mathbf{A}$, where $\mathbf{A}$ stands for a proposition and $\mathbf{b}$ stands for an object. Let me adopt an informal notation to express some basic insights. For object $\mathbf{a}$ and proposition $\mathbf{B}$ let $\mathbf{aB}$ mean that for $\mathbf{a}$ it is necessary that $\mathbf{B}$. For object $\mathbf{a}$ let $\mathrm{Ex}\mathbf{a}$ mean that $\mathbf{a}$ exists and let $\mathrm{Pos}\mathbf{a}$ mean that $\mathbf{a}$ is possible. For objects $\mathbf{a}$ and $\mathbf{b}$ let $\mathbf{a/b}$ mean that $\mathbf{a}$ is well-founded in $\mathbf{b}$ and let $(\mathbf{a*b})$ stand for the fusion of $\mathbf{a}$ and $\mathbf{b}$. The signs $\sim$, $\&$, $\vee$ and $\rightarrow$ will then be used respectively as symbols for negation, conjunction, disjunction and material implication. It is quite clear that if an object exists, then every state of affair that is necessary for the object obtains:

(1) $\mathrm{Ex}\mathbf{a} \rightarrow (\mathbf{aB} \rightarrow \mathbf{B})$.

So, the denial of something that is necessary for object $\mathbf{a}$, implies the denial of the existence of $\mathbf{a}$:

(2) $\mathbf{aB} \rightarrow (\sim\!\mathbf{B} \rightarrow \sim\!\mathrm{Ex}\mathbf{a})$.

On the other hand, the existence of object $\mathbf{a}$ is something that is necessary for object $\mathbf{a}$:

(3) $\mathbf{a}(\mathrm{Ex}\mathbf{a})$,

therefore, existence is, in a sense, something necessary. If there is a contradictory pair of situations, such that each of them is necessary for object $\mathbf{a}$, then $\mathbf{a}$ is not a possible object:

(4) $(\mathbf{aB} \,\&\, \mathbf{a}(\sim\!\mathbf{B})) \rightarrow \sim\!\mathrm{Pos}\mathbf{a}$,

which implies, that

(5) $\mathrm{Pos}\mathbf{a} \rightarrow (\mathbf{aB} \rightarrow \sim\!\mathbf{a}(\sim\!\mathbf{B}))$.

Of course, each object that exists, is a possible object:

(6) $\mathrm{Ex}\mathbf{a} \rightarrow \mathrm{Pos}\mathbf{a}$.

If object $\mathbf{a}$ is well-founded in object $\mathbf{b}$, then everything that is necessary for $\mathbf{b}$ is also necessary for $\mathbf{a}$:

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[3] See J. Perzanowski, 'Ontologies and Ontologics', [in:] E. Żarnecka-Biały (ed.), *Logic Counts*, Dordrecht 1990, pp. 23–42.

(7) **a/b** → (**bC** → **aC**).

On the other hand, if the existence of object **b** is necessary for object **a**, then **a** is well-founded in **b**:

(8) **a**(Ex**b**) → **a/b**,

and conversely, if object **a** is well-founded in object **b**, then the existence of **b** is necessary for **a**:

(9) **a/b** → **a**(Ex**b**).

Well-founding is a transitive and reflexive relation, thus:

(10) (**a/b** & **b/c**) → **a/b**

and

(11) (**a/a**).

By the fusion of objects **a** and **b**, I understand a complex object composed of **a** and **b** as its direct parts. Therefore, if a situation **C** is necessary for object **a** or is necessary for object **b**, then it is necessary for the fusion of these objects:

(12) (**aC** ∨ **bC**) → (**a*b**)**C**,

but the converse implication is not generally valid. There could be a situation **C** that is neither necessary for **a** nor for **b**, but is necessary for the fusion of **a** and **b**. If the fusion of **a** and **b** exists, then **a** and **b** also exists:

(13) Ex(**a*b**) → (Ex**a** & Ex**b**),

but not conversely. Finally, each complex object is well-founded in its direct parts:

(14) (**a*b**)/**a**

and

(15) (**a*b**)/**b**.

As was said, Leibniz suggested that necessity was an equivalent to the truth at all possible worlds, although perhaps he never stated it explicitly. So, a proposition is necessarily true in this world (or a situation, or a state of affairs necessarily obtains in this world) if and only if that proposition is true in all worlds alternative to this world (or that situation, or that state of affairs obtains in all worlds alternative to this world). Possible worlds are also referred to by the term 'stand points' or 'possibilities' or 'state descriptions'.

Assuming that, the concept of necessity as applied to propositions or proposition-like entities may be relativized to the objects in a fixed ontological universe, I will take into account not one, but many different alternativeness-relations, one relation for one object. So, instead of contexts like *v is an alternative to w*, where *v* and *w* stand for possible worlds, I will deal with contexts like *for* **a** *possible world v is accessible from world w*, or shortly, *v is* **a***-accessible from w*, where **a** stands for an object. It could be said, that if *v is* **a***-accessible from w*, then

at a possible world w, v is a possible world which is supportive for object a, or the transition from the possible world w to the possible world v is sustainable for object a. The idea is roughly as follows. An object can be faced with many different possibilities. Usually, some of these possibilities are sustainable for the object and some of them are not. Moreover, the class of possibilities which are sustainable for an object can vary from different standpoints. Thus, each object could be determined (as to its existential aspect) by the relation which correlates each standpoint with the possibilities, which are sustainable for the object in this standpoint. The possible worlds are simply formal counterparts of possibilities and standpoints. I assume that, aB is true at a possible world w if and only if B is true at all possible worlds which are a-*accessible from* w, that is, a situation is necessary for an object at a possible world w if and only if it obtains in all possible worlds which are accessible for this object from world w. I also assume that, Exa is true at a possible world w if and only if the possible world w is a-*accessible* from itself, and that $Posa$ is true at a possible world w if and only if there is a possible world v which is a-*accessible* from the possible world w. Furthermore, I assume, that a/b is true at a possible world w if and only if any possible world v, which is a-*accessible* from the possible world w, is also b-*accessible* from the possible world w. Finally, I assume that if a possible world v is $(a*b)$-*accessible* from a possible world w, then the possible world v is a-*accessible* from the possible world w and b-*accessible* from the possible world w. I presume that if a possible world v is a-*accessible* from a possible world w, then the possible world v is a-*accessible* from itself. Thus, if a possibility v is sustainable for object a in a standpoint w, then the transition from w to v doesn't change the quality of possibility v as a possibility sustainable for a. This assumption could be referred to as *the first ontological consistency principle*. I also presume that if any possible world v, which is a-*accessible* from a possible world w, is a possible world which is b-*accessible* from itself, then, any possible world v, which is a-*accessible* from the possible world w, is also b-*accessible* from the possible world w. Thus, due to a possible world v that is b-accessible from itself is a possible world at which b exists, if that a possibility v is sustainable for object a in the standpoint w implies that v is a point at which b exist, then that a possibility v is sustainable for object a in the standpoint w implies that v is also a possibility sustainable for object b in the standpoint w. This assumption could be referred to as *the second ontological consistency principle*.

2. A language for modal ontologic consists of the following:
The alphabet is given by

(a) a denumerable set P of propositional letters. I refer to these as p_1, p_2, p_3, ...etc.,

(b) the symbols of logical connectives $\sim$ and & for negation and conjunction respectively,

(c) a denumerable set O of object letters. I refer to these as a_1, a_2, a_3, ...etc.,

(d) the ontological symbols of fusion *****, existence Ex, possibility Poss and well-founding /,

(e) the auxiliary symbols (and).

The set Ob of one-place object operators is the smallest set X satisfying the following conditions:

(Ob 1) Each object letter belongs to X.
(Ob 2) If x belongs to X and y belongs to X, then (x**y) belongs to X.

The letters **a**, **b**, **c**... are used as metalogical variables, to range over object operators.

The set For of well-formed sentential formulae is the smallest set X satisfying the following conditions:

(For 1) Each propositional letter belongs to X.
(For 2) If x belongs to X and y belongs to X, then (x & y), ∼x and ∼y belongs to X.
(For 3) If **a** is an object operator, then Ex**a** and Poss**a** belongs to X.
(For 4) If **a** and **b** are object operators, then **a**/**b** belongs to X.
(For 5) If x belongs to X and **a** is an object operator, then **a**x belongs to X.

The letters **A**, **B**, **C**... are used as metalogical variables, to range over well-formed sentential formulae.

Various other symbols are introduced by following definitions:

(D1) (**A** ∨ **B**) = ∼(∼**A** & ∼**B**)
(D2) (**A** → **B**) = ∼(**A** & ∼**B**)
(D3) (**A** ≡ **B**) = ∼(**A** & ∼**B**) & ∼(∼**A** & **B**)
(D4) **aB** = ∼(**a**∼**B**).

The phrase **aB** could be read: **B** is possible for **a**.

Within the frame of the formal language a simple *modal ontological calculus* can be constructed. A calculus is given by a set of sentential formulae, called axioms, and a finite set of inference rules. Let me construct the modal ontological calculus on the following axiomatic basis.

The first group of axioms consists of all tautologies of classical propositional logic, with well-formed formulae of ontological language substituted for the propositional letters.

The second group of axioms is determined by the following schemata:

(A1) **a**(**B** → **C**) → (**aB** → **aC**),
(A2) Ex**a** → (**aB** → **B**),
(A3) **a**Ex**a**,
(A4) Pos**a** → (**aB** → ∼**a**∼**B**),
(A5) ∼**aB** → Pos**a**,
(A6) **a**/**b** → (**bC** → **aC**),
(A7) **a**Ex**b** → **a**/**b**,
(A8) (**aC** ∨ **bC**) → (**a***b**)**C**.

The rules of inference of the calculus are:

(R1) Rule of Detachment (*Modus Ponens*).

(R2) A Rule of Necessitation to the effect that if **B** is a provable formula, then **aB** is also a provable formula.

The axiom schema (A1) and the rule (R2) are respectively the multimodal versions of the axiom of regularity and the rule of necessitation applied in standard logical calculi for normal propositional modal logics. The axiom schemata (A2)–(A8) capture a proper ontological content discussed in the previous paragraph.

A proof is then defined as a finite sequence of formulas such that each member either belongs to axioms or is derived from earlier members of the sequence by *Modus Ponens* or the Rule of Necessitation. A proof is said to be a proof of the last member in its sequence, and a thesis is a formula of which there is a proof. I write ⊢ to mean that the formula **A** is a thesis. From the axiomatic basis of the modal ontological calculus we can prove a number of theses. Among them are all formal counterparts of (1)–(15). In fact, formal counterparts of (1), (3), (5), (7), (8) and (12) are axioms. As to the remaining of them, and some other theses, let me state the following theorem.

> *Theorem 1.* The following expressions are thesis schemata of modal on-
> tological calculus (the proofs of theorems are enclosed in the appendix,
> where proofs are easy, they are omitted):

(Th1) $\mathbf{aB} \rightarrow (\sim\mathbf{B} \rightarrow \sim\mathrm{Ex}\mathbf{a})$,

(Th2) $(\mathbf{aB} \,\&\, \mathbf{a}\sim\mathbf{B}) \rightarrow \sim\mathrm{Pos}\mathbf{a}$,

(Th3) $\mathrm{Ex}\mathbf{a} \rightarrow \mathrm{Pos}\mathbf{a}$,

(Th4) $\mathbf{a/b} \rightarrow \mathbf{a}(\mathrm{Ex}\mathbf{b})$,

(Th5) $(\mathbf{a/b} \,\&\, \mathbf{b/c}) \rightarrow \mathbf{a/c}$,

(Th6) $(\mathbf{a/a})$,

(Th7) $\mathrm{Ex}(\mathbf{a*b}) \rightarrow (\mathrm{Ex}\mathbf{a} \,\&\, \mathrm{Ex}\mathbf{b})$,

(Th8) $(\mathbf{a*b})\mathrm{Ex}\mathbf{a}$,

(Th9) $(\mathbf{a*b})\mathrm{Ex}\mathbf{b}$,

(Th10) $(\mathbf{a*b})/\mathbf{a}$,

(Th11) $(\mathbf{a*b})/\mathbf{b}$,

(Th12) $\mathrm{Pos}(\mathbf{a*b}) \rightarrow (\mathrm{Pos}\mathbf{a} \,\&\, \mathrm{Pos}\mathbf{b})$,

(Th13) $(\mathbf{a/b} \,\&\, \mathbf{b/a}) \rightarrow (\mathrm{Ex}\mathbf{a} \equiv \mathrm{Ex}\mathbf{b})$,

(Th14) $\mathbf{a/b} \rightarrow (\mathbf{a*c})/\mathbf{b}$,

(Th15) $\mathbf{a/}(\mathbf{b*c}) \rightarrow (\mathbf{a/b} \,\&\, \mathbf{a/c})$.

Let me draw your attention to (Th8), (Th9) and to the last four schemata (Th12)–(Th15) which capture some ontological intuition about objects. Thesis schemata (Th8) and (Th9) say that existence of **a** as well as existence of **b** is necessary for the fusion of **a** and **b**. According to (Th12) if the fusion of **a** and **b**

is possible, then **a** is possible and **b** is possible. Due to (Th13), if **a** is well-founded in **b** and **b** is well-founded in **a**, then **a** exist if and only if **b** exist. Scheme (Th14) says that if **a** is well-founded in **b**, then a fusion of **a** and **c** is also well-founded in **b** and scheme (Th15) says that if **a** is well-founded in the fusion of **b** and **c**, then **a** is well-founded in **b** and **a** is well founded in **c**.

By the *modal ontological theory*, I mean the class of all theses. Thus, the modal ontological theory is the smallest set containing all axioms and closed with respect to *Modus Ponens* and the Rule of Necessitation.

For any set of formulas X, I shall say that **A** is *deducible* from X if and only if there are formulas $\mathbf{B}_1$, $\mathbf{B}_2$,....$\mathbf{B}_n$ belonging to X such that the formula $(\mathbf{B}_1 \,\&\, \mathbf{B}_2 \,\&\, ... \,\&\, \mathbf{B}_n) \to \mathbf{A}$ is a thesis. Note that each formula which is deducible from the modal ontological theory belongs to it. A set of formulas X is called *consistent* if and only if there is no formula **A**, such that **A** and $\sim$**A** are both deducible from X. Otherwise X is called *inconsistent*. The definition implies that if any set of formulae X is inconsistent, then some finite subset of X is also inconsistent, and that if any set of formulas X is inconsistent and a formula **A** is not deducible form X, then the set X $\cup$ {$\sim$**A**}is also inconsistent. Let me assume, that sets of formulae represent situations and consistent sets of formulae represent consistent, or ontologically possible situations. Note that if the modal ontological theory is inconsistent, then all sets of formulae are inconsistent. Fortunately the following theorem holds.

Theorem 2. The modal ontological theory is consistent.

A set of formulae is *complete* if and only if for any formula **A** either **A** belongs to X or $\sim$**A** belongs to X. A set of formulae which is both consistent and complete is called a *maximal consistent* set of formulae. Note that if X is maximal consistent set of formulae and **A** is deducible from X, then **A** belongs to X. It is easy to show, that for every maximal consistent set of formulae X and for every formulae **A** and **B**, (*i*) $\sim$**A** belongs to X if and only if **A** doesn't belong to X, (*ii*) (**A** & **B**) belongs to X if and only if **A** belongs to X and **B** belongs to X, (*iii*) (**A** $\vee$ **B**) belongs to X if and only if **A** belongs to X or **B** belongs to X, (*iv*) (**A** $\to$ **B**) belongs to X if and only if if **A** belongs to X, then **B** belongs to X, (*v*) (**A** $\equiv$ **B**) belongs to X if and only if **A** belongs to X if and only if **B** belongs to X.

Maximal consistent sets of formulae might be regarded as complete state descriptions expressed in the language of modal ontologic. Thus, they might be regarded as counterparts of possible worlds. For the modal ontological theory holds the theorem known as the Lindenbaum's Lemma to the effect that any consistent set of formulae is a subset of a maximal consistent set of formulae. It follows that a set of formulas is consistent if and only if it is included in a maximal consistent set of formulas. It reflects the conviction that any ontologically possible situation obtains in some possible world and, in fact, that a situation is ontologically possible if and only if it obtains in some possible world.

3. The semantics of modal ontologic is a slight modification to the standard semantics of normal modal logics known as possible worlds semantics. The object

operators are to be interpreted as binary relations on the set of possible worlds. The intuition behind this modeling is that each object **a** is determined by the binary relation $\mathbf{R_a}$, which correlates a possible world $\boldsymbol{w}$ with possible worlds, which are supportive for object **a** at a possible world $\boldsymbol{w}$. The symbol of fusion is to be interpreted as a binary operation $+$ defined on the set of binary relations assigned to modal operators. I assume that for any relations **R** and **S**, and for any possible worlds $\boldsymbol{w}$ and $\boldsymbol{v}$, if $\boldsymbol{v}\mathbf{R}+\mathbf{S}\boldsymbol{w}$ then $\boldsymbol{v}\mathbf{R}\boldsymbol{w}$ and $\boldsymbol{v}\mathbf{S}\boldsymbol{w}$. It reflects the conviction that a possible world which is supportive for a fusion is also supportive for the direct parts of the fusion.

Formally, I shall introduce the notion of an ontological model. An ontological model M is to consist of a non-empty set of possible worlds W, an infinite sequence P_1, P_2, P_3,... of subsets of W, let me abbreviate it as P_i, a set of binary relations on W, let me abbreviate it as R, a binary operation $+$ defined on R, and an infinite sequence R_1, R_2, R_3, ... of binary relations from R, let me abbreviate it as R_i. Thus, I define an ontological model as a structure $M = <W, P_i, R, +, R_i>$ satisfying the following additional conditions:

(C1) for any relations **R** and **S** belonging to R, and for any $\boldsymbol{w}$ and $\boldsymbol{v}$ belonging to W, if $\boldsymbol{v}\mathbf{R}+\mathbf{S}\boldsymbol{w}$ then $\boldsymbol{v}\mathbf{R}\boldsymbol{w}$ and $\boldsymbol{v}\mathbf{S}\boldsymbol{w}$;

(C2) for any relation **R** belonging to R, and for any $\boldsymbol{w}$ and $\boldsymbol{v}$ belonging to W, if $\boldsymbol{v}\mathbf{R}\boldsymbol{w}$ then $\boldsymbol{v}\mathbf{R}\boldsymbol{v}$;

(C3) for any relations **R** and **S** belonging to R, and for any $\boldsymbol{w}$ and $\boldsymbol{v}$ belonging to W, if $\boldsymbol{v}\mathbf{R}\boldsymbol{w}$ implies that $\boldsymbol{v}\mathbf{S}\boldsymbol{v}$, then $\boldsymbol{v}\mathbf{R}\boldsymbol{w}$ implies that $\boldsymbol{v}\mathbf{S}\boldsymbol{w}$.

Condition (C1) reflects the conviction that a possible world which is supportive for a fusion is also supportive for the direct parts of the fusion. Conditions (C2) and (C3) are formal counterparts of the first ontological consistency principle and the second ontological consistency principle stated at the end of the paragraph 1.

Given the definition of an ontological model, I shall state the following theorem.

Theorem 3. There are structures which are ontological models.

For any modal operator **a** there is a unique binary relation $\mathbf{R_a}$, which correspond to **a** in a model M. For each natural number k, R_k correspond to a_k and $\mathbf{R_a}+\mathbf{R_b}$ correspond to (**a*b**). In terms of possible world in a model I state the truth conditions for formulae according to their forms. I write $\boldsymbol{w}\models^M \mathbf{A}$ to mean that **A** is true at the possible world $\boldsymbol{w}$ in the model M. The truth conditions are as follows.

1. $\boldsymbol{w}\models^M \mathrm{p}_k$ if and only if $\boldsymbol{w}$ belongs to P_k, for $k = 1, 2, 3,\ldots$.
2. $\boldsymbol{w}\models^M \sim\mathbf{A}$ if and only if not $\boldsymbol{w} \models^M \mathbf{A}$.
3. $\boldsymbol{w}\models^M (\mathbf{A}\ \&\ \mathbf{B})$ if and only if both $\boldsymbol{w}\models^M \mathbf{A}$ and $\boldsymbol{w}\models^M \mathbf{B}$.
4. $\boldsymbol{w}\models^M \mathbf{aB}$ if and only if for any possible world $\boldsymbol{v}$ if $\boldsymbol{v}\mathbf{R_a}\boldsymbol{w}$ then $\boldsymbol{v}\models^M \mathbf{B}$.
5. $\boldsymbol{w}\models^M \mathrm{Ex}\mathbf{a}$ if and only if $\boldsymbol{w}\mathbf{R_a}\boldsymbol{w}$.
6. $\boldsymbol{w}\models^M \mathrm{Pos}\mathbf{a}$ if and only if there is a possible world $\boldsymbol{v}$ such that $\boldsymbol{v}\mathbf{R_a}\boldsymbol{w}$.
7. $\boldsymbol{w}\models^M \mathbf{a/b}$ if and only if for any possible world $\boldsymbol{v}$ if $\boldsymbol{v}\mathbf{R_a}\boldsymbol{w}$ then $\boldsymbol{v}\mathbf{R_b}\boldsymbol{w}$.

Clause (1) reflects the stipulation that in a model M, a propositional letter

p_k is true at a possible world w just in the case w is a member of the set P_k. Clauses (2) and (3) are simply repeats of the usual propositional truth clauses. Due to definitions (D1)–(D4) they yield the classical truth tables for standard propositional connectives. Clause (4) formulates the interpretation of object relative necessity: **aB** is true at a possible world w if and only if **B** is true at all possible worlds which are **a**-*accessible from* w, or a situation is necessary for an object at a possible world w if and only if it obtains in all possible worlds which are supportive for this object at the world w. Clauses (5), (6) and (7) reflect the remarks about ontological concepts of existence, possibility, well-foundation and fusion contained in the paragraph 1.

A formula true at every possible world in a model M is said to be *valid* in the model M, a formula valid in every model is said to be *ontologically valid*. I write $\models^M$ **A** to mean that the formula **A** is valid in the model M, and $\models$ **A** to mean that the formula **A** is ontologically valid.

For any possible world w let $[w]^{\mathbf{Ra}}$ be the set of possible worlds which are supportive for object **a** at the possible world w. Thus $[w]^{\mathbf{Ra}} = \{v : v\mathbf{R_a}w\}$. I shall call it the *range of object* **a** at the possible world w. The range of object **a** at the possible world w contains the possibilities which are sustainable for object **a** according to the standpoint w. Thus each object **a** can be depicted as a function which to any possible world assigns the range of object **a** at the possible world w. Let me reformulate the clauses (5) – (7) in terms of range of an object. The clauses are as follows.

(5*) $w\models^M$ Ex**a** if and only if w belongs to $[w]^{\mathbf{Ra}}$.
(6*) $w\models^M$ Pos**a** if and only if $[w]^{\mathbf{Ra}} \neq \emptyset$.
(7*) $w\models^M$ **a**/**b** if and only if $[w]^{\mathbf{Ra}} \subseteq [w]^{\mathbf{Rb}}$.

According to (5*) object **a** exists at point w if and only if from standpoint w, w is itself a sustainable possibility for object **a**. Clause (6*) states that object **a** is possible at point w if and only if the class of possibilities which are sustainable for object **a** according to standpoint w is not empty. The content of (7*) is that object **a** is well-founded in object **b** at point w if and only if the class of possibilities which are sustainable for object **a** according to standpoint w is included in the class of possibilities which are sustainable for object **b** according to standpoint w.

4. In the previous two paragraphs modal ontological formulae were studied in two quite different ways, a syntactical one in paragraph 2 and a semantic one in paragraph 3. The syntactical approach is concerned with a modal ontological calculus and a modal ontological theory as a set of all theses. On the other hand, the semantic approach is concerned with ontological models and with truth conditions in a model. By the help of these semantic notions a set of ontologically valid formulae has been singled out. A fruitful blend of the two approaches results in the following completeness theorem.

Theorem 4. A formula is a thesis of modal ontologic if and only if it is an ontologically valid formula.

Thus, the syntactical and the semantic approach depict the same class of ontologically true formulae.

Appendix

Proof of theorem 1. To prove the theorem it is sufficient to show that the schemata (Th1) – (Th15) are thesis schemata.

(Th1) $\mathbf{aB} \to (\sim\mathbf{B} \to \sim\mathrm{Ex}\mathbf{a})$: From (A2) by propositional logic.

(Th2) $(\mathbf{aB}\ \&\ \mathbf{a}\sim\mathbf{B}) \to \sim\mathrm{Pos}\mathbf{a}$: From (A4) by propositional logic.

(Th3) $\mathrm{Ex}\mathbf{a} \to \mathrm{Pos}\mathbf{a}$: By (A2), $\mathrm{Ex}\mathbf{a} \to (\mathbf{aB} \to \mathbf{B})$ is a thesis schema. Then, by propositional logic, $\mathrm{Ex}\mathbf{a} \to (\sim\mathbf{B} \to \sim\mathbf{aB})$ is a thesis schema and $\mathrm{Ex}\mathbf{a} \to (\sim\mathbf{0} \to \sim\mathbf{a0})$ is also a thesis schema ($\mathbf{0}$ stands for arbitrary chosen counter-tautology of propositional logic). Thus, by propositional logic, $\mathrm{Ex}\mathbf{a} \to \sim\mathbf{a0}$ is a thesis schema. But, by (A5), $\sim\mathbf{a0} \to \mathrm{Pos}\mathbf{a}$ is a thesis schema and, by propositional logic $\mathrm{Ex}\mathbf{a} \to \mathrm{Pos}\mathbf{a}$ is a thesis schema.

(Th4) $\mathbf{a/b} \to \mathbf{a}\mathrm{Ex}\mathbf{b}$: By (A6), $\mathbf{a/b} \to (\mathbf{b}\mathrm{Ex}\mathbf{b} \to \mathbf{a}\mathrm{Ex}\mathbf{b})$ is a thesis schema. But, by (A3), $\mathbf{b}\mathrm{Ex}\mathbf{b}$ is a thesis schema, then, by propositional logic, $\mathbf{a/b} \to \mathbf{a}\mathrm{Ex}\mathbf{b}$ is a thesis schema.

(Th5) $(\mathbf{a/b}\ \&\ \mathbf{b/c}) \to \mathbf{a/c}$: By (A6) and propositional logic, $(\mathbf{a/b}\ \&\ \mathbf{b/c}) \to (\mathbf{cD}\to\mathbf{aD})$ is a thesis schema and therefore $(\mathbf{a/b}\ \&\ \mathbf{b/c}) \to (\mathbf{c}\mathrm{Ex}\mathbf{c}\to\mathbf{a}\mathrm{Ex}\mathbf{c})$ is a thesis schema. But, by (A3), $\mathbf{c}\mathrm{Ex}\mathbf{c}$ is a thesis schema and $(\mathbf{a/b}\ \&\ \mathbf{b/c}) \to \mathbf{a}\mathrm{Ex}\mathbf{c}$ is a thesis schema. Hence, by (A7) and propositional logic, $(\mathbf{a/b}\ \&\ \mathbf{b/c}) \to \mathbf{a/c}$ is a thesis schema.

(Th6) $\mathbf{a/a}$: From (A3) and (A7) by propositional logic.

(Th7) $\mathrm{Ex}(\mathbf{a*b}) \to (\mathrm{Ex}\mathbf{a}\ \&\ \mathrm{Ex}\mathbf{b})$: By (A2), $\mathrm{Ex}(\mathbf{a*b}) \to ((\mathbf{a*b})\mathrm{Ex}\mathbf{a} \to \mathrm{Ex}\mathbf{a})$ and $\mathrm{Ex}(\mathbf{a*b}) \to ((\mathbf{a*b})\mathrm{Ex}\mathbf{b} \to \mathrm{Ex}\mathbf{b})$ are thesis schemata. But, by (A8), $\mathbf{a}\mathrm{Ex}\mathbf{a} \to (\mathbf{a*b})\mathrm{Ex}\mathbf{a}$ and $\mathbf{b}\mathrm{Ex}\mathbf{b} \to (\mathbf{a*b})\mathrm{Ex}\mathbf{b}$ are thesis schemata. Hence, by propositional logic, $\mathrm{Ex}(\mathbf{a*b}) \to (\mathbf{a}\mathrm{Ex}\mathbf{a} \to \mathrm{Ex}\mathbf{a})$ and $\mathrm{Ex}(\mathbf{a*b}) \to (\mathbf{b}\mathrm{Ex}\mathbf{b} \to \mathrm{Ex}\mathbf{b})$ are thesis schemata and, by (A3) and propositional logic, $\mathrm{Ex}(\mathbf{a*b}) \to (\mathrm{Ex}\mathbf{a}\ \&\ \mathrm{Ex}\mathbf{b})$ is a thesis schema.

(Th8) $(\mathbf{a*b})\mathrm{Ex}\mathbf{a}$: By (Th7), $\mathrm{Ex}(\mathbf{a*b}) \to \mathrm{Ex}\mathbf{a}$ is a thesis schema. Hence, by (A1) and (R2), $(\mathbf{a*b})\mathrm{Ex}(\mathbf{a*b}) \to (\mathbf{a*b})\mathrm{Ex}\mathbf{a}$ is a thesis schema. But, by (A3), $(\mathbf{a*b})\mathrm{Ex}(\mathbf{a*b})$ is a thesis schema and, by (R1), $(\mathbf{a*b})\mathrm{Ex}\mathbf{a}$ is a thesis schema.

(Th9) $(\mathbf{a*b})\mathrm{Ex}\mathbf{b}$: In the same way as for (Th8).

(Th10) $(\mathbf{a*b})/\mathbf{a}$: By (Th8), $(\mathbf{a*b})\mathrm{Ex}\mathbf{a}$ is a thesis schema. Hence, by (A7), $(\mathbf{a*b})/\mathbf{a}$ is a thesis schema.

(Th11) $(\mathbf{a*b})/\mathbf{b}$: In the same way as for (Th10).

(Th12) $\mathrm{Pos}(\mathbf{a*b}) \to (\mathrm{Pos}\mathbf{a}\ \&\ \mathrm{Pos}\mathbf{b})$: By (A4) $\mathrm{Pos}(\mathbf{a*b}) \to ((\mathbf{a*b})\mathbf{C} \to \sim(\mathbf{a*b})\sim\mathbf{C})$ is a thesis schema. But, by (A8), $\mathbf{aC} \to (\mathbf{a*b})\mathbf{C}$ and $\mathbf{bC} \to (\mathbf{a*b})\mathbf{C}$ are thesis schemata and, by propositional logic, $\mathrm{Pos}(\mathbf{a*b}) \to (\mathbf{aC} \to \sim(\mathbf{a*b})\sim\mathbf{C})$ and $\mathrm{Pos}(\mathbf{a*b}) \to (\mathbf{bC} \to \sim(\mathbf{a*b})\sim\mathbf{C})$ are thesis schemata. In particular, $\mathrm{Pos}(\mathbf{a*b}) \to (\mathbf{a0} \to \sim(\mathbf{a*b})\sim\mathbf{0})$ and $\mathrm{Pos}(\mathbf{a*b}) \to (\mathbf{b0} \to \sim(\mathbf{a*b})\sim\mathbf{0})$ are thesis schemata and, by propositional logic, $\mathrm{Pos}(\mathbf{a*b}) \to ((\mathbf{a*b})\sim\mathbf{0} \to \sim\mathbf{a0})$ and $\mathrm{Pos}(\mathbf{a*b}) \to ((\mathbf{a*b})\sim\mathbf{0} \to \sim\mathbf{b0})$ are thesis schemata. ($\mathbf{0}$ stands for arbitrary chosen counter-

tautology of propositional logic.) But, by (R2), (**a*b**)∼**0** is a thesis schema and therefore Pos(**a*b**) → ∼**a0** and Pos(**a*b**) → ∼**b0** are thesis schemata. Hence, by (A5) and propositional logic, Pos(**a*b**) → (Pos**a** & Pos**b**) is a thesis schema.

(Th13) (**a/b** & **b/a**) → (Ex**a** ≡ Ex**b**): By (A6), **a/b** → (**b**Ex**b** → **a**Ex**b**) is a thesis schema and, by (A3) and propositional logic, **a/b** → **a**Ex**b** is a thesis schema. By (A2), Ex**a** → (**a**Ex**b** → Ex**b**) is a thesis schema. Hence, by propositional logic, **a/b** → (Ex**a** → Ex**b**) is a thesis schema. On the other hand, by (A6), **b/a** → (**a**Ex**a** → **b**Ex**a**) is a thesis schema and, by (A3) and propositional logic, **b/a** → **b**Ex**a** is a thesis schema. By (A2), Ex**b** → (**b**Ex**a** → Ex**a**) is a thesis schema. Hence, by propositional logic, **b/a** → (Ex**b** → Ex**a**) is a thesis schema. Thus, by propositional logic, (**a/b** & **b/a**) → (Ex**a** ≡ Ex**b**) is a thesis schema.

(Th14) **a/b** → (**a*c**)/**b**: From (Th10) and (Th5) by propositional logic.

(Th15) **a/(b*c)** → (**a/b** & **a/c**): By (A6), **a/(b*c)** → ((**b*c**)**C** → **aC**), is a thesis schema. Hence, **a/(b*c)** → ((**b*c**)Ex**b** → **a**Ex**b**) and **a/(b*c)** → ((**b*c**)Ex**c** → **a**Ex**c**) are thesis schemata. But, by (Th8) and (Th9), (**b*c**)Ex**b** and (**b*c**)Ex**c** are thesis schemata, and therefore **a/(b*c)** → **a**Ex**b** and **a/(b*c)** → **a**Ex**c** are thesis schemata. Thus, by (A7) and propositional logic, **a/(b*c)** → (**a/b** & **a/c**) is a thesis schema.

Proof of theorem 2. To prove that the modal ontological theory is consistent let me take advantage of a standard language of classical propositional logic. The alphabet is given by a denumerable set Q of propositional letters, I refer to these as q_1, q_2, q_3, . . . etc., the symbols of logical connectives ∼ and & for negation and conjunction respectively and parentheses (and). The set of well-formed sentential formulae is defined inductively in the standard way. Thus (i) every propositional letter is a well-formed sentential formula, (ii) if x and y are well-formed sentential formulae, then ∼x, ∼y and (x&y) are well-formed sentential formulae, (iii) nothing else is a well-formed sentential formula. The symbols ∨, → and ≡ are introduced by definitions in the standard way. Let me define the mapping T, from the language of the modal ontologic to the language of classical propositional calculus, as follows.

(T1) T(p_n) = q_{2n}.
(T2) T(a_n) = q_{2n+1}.
(T3) T(**a*b**) = T(**a**) & T(**b**).
(T4) T(∼**A**) = ∼T(**A**).
(T5) T(**A** & **B**) = T(**A**) & T(**B**).
(T5) T(Ex**a**) = T(**a**).
(T6) T(pos**a**) = T(**a**).
(T7) T(**a/b**) = T(**a**) →T(**b**).
(T8) T(**aB**) = T(**a**) → T(**B**).

Thus, T associates with each well-formed sentential formula **A** in modal ontologic language a unique formula T(**A**) in the language of classical propositional logic. Let me call it the PC-transform of **A**. It is easy to show, that the PC-transform of every thesis of modal ontological calculus is a tautology of classical propositional calculus. It follows that for every well-formed sentential formula **A**,

A and $\sim$**A** are not theses, for if they were, T(**A**) and $\sim$T(**A**) would both be tautologies of classical propositional calculus, which is impossible.

Proof of theorem 3. Let W^* be the set of maximal consistent sets of formulae. Due to *theorem 2*, W^* is a non-empty set. Let P_i^* be the infinite sequence of subsets of W^*, such that for each natural number k, P_k^* is the set of maximal consistent sets of formulae containing propositional letter p_k. For each object operator **a**, let $\mathbf{R_a}$ be the binary relation on W^*, such that for any $\boldsymbol{v}$ and $\boldsymbol{w}$ belonging to W^*, $\boldsymbol{v} \; \mathbf{R_a} \boldsymbol{w}$ if and only if $\{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$. Let R^* be the set of binary relations on W^* which contains for every object operator **a** the relation $\mathbf{R_a}$ and no other relations. Let $+^*$ be the binary operation on R^* such that for any $\mathbf{R_a}$ and $\mathbf{R_b}$ belonging to W^*, $\mathbf{R_a} +^* \mathbf{R_b} = \mathbf{R_{(a*b)}}$. Let R_i^* be the infinite sequence of binary relations on W^*, such that for each natural number k, for any $\boldsymbol{v}$ and $\boldsymbol{w}$ belonging to W^*, $\boldsymbol{v} \; R_k^* \boldsymbol{w}$ if and only if $\{\mathbf{C} : \mathbf{a}_k\mathbf{C} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$. In order to show that the structure $M^* = <W^*, P_i^*, R^*, +^*, R_i^* >$ is an ontological model, it is sufficient to prove that the structure satisfy the conditions (C1), (C2) and (C3).

To prove (C1) assume that $\boldsymbol{v} \mathbf{R_a} +^* \mathbf{S_b} \boldsymbol{w}$. Thus $\boldsymbol{v} \mathbf{R_{(a*b)}} \boldsymbol{w}$ and $\{\mathbf{C} : (\mathbf{a*b})\mathbf{C} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$. Now suppose $\mathbf{aC}$ belongs to $\boldsymbol{w}$. Then, by (A8), $(\mathbf{a*b})\mathbf{C}$ also belongs to $\boldsymbol{w}$, and by the assumption, **C** belongs to $\boldsymbol{v}$. Hence $\{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$. Next, suppose $\mathbf{bC}$ belongs to $\boldsymbol{w}$. Then, by (A8), $(\mathbf{a*b})\mathbf{C}$ also belongs to $\boldsymbol{w}$, and by the assumption, **C** belongs to $\boldsymbol{v}$. Hence $\{\mathbf{C} : \mathbf{bC} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$. Thus, $\boldsymbol{v} \mathbf{R_a} \boldsymbol{w}$ and $\boldsymbol{v} \mathbf{R_b} \boldsymbol{w}$.

To prove (C2) assume that $\boldsymbol{v} \mathbf{R_a} \boldsymbol{w}$. Thus $\{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$ and, by (A3), Ex**a** belongs to $\boldsymbol{v}$. Hence, by (A2) any formula depicted by schema $(\mathbf{aC} \rightarrow \mathbf{C})$, also belongs to $\boldsymbol{v}$. Thus for any formula $\mathbf{aC}$, if $\mathbf{aC}$ belongs to $\boldsymbol{v}$, then C belongs to $\boldsymbol{v}$. Hence $\{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{v}\} \subseteq \boldsymbol{v}$ and $\boldsymbol{v} \mathbf{R_a} \boldsymbol{v}$.

To prove (C3) assume that for any $\boldsymbol{v}$, $\boldsymbol{v} \mathbf{R_a} \boldsymbol{w}$ implies that $\boldsymbol{v} \mathbf{R_b} \boldsymbol{v}$. Thus for any $\boldsymbol{v}$, if $\{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$, then $\{\mathbf{C} : \mathbf{bC} \; \epsilon \; \boldsymbol{v}\} \subseteq \boldsymbol{v}$. But, due to (A3) for any $\boldsymbol{v}$, if $\{\mathbf{C} : \mathbf{bC} \; \epsilon \; \boldsymbol{v}\} \subseteq \boldsymbol{v}$, then Ex**b** belongs to $\boldsymbol{v}$. Thus, for any $\boldsymbol{v}$, if $\{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$, then Ex**b** belongs to $\boldsymbol{v}$. Hence, no maximal consistent set of formulae includes the set $\{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{w}\} \cup \{\sim\text{Ex}\mathbf{b}\}$ and therefore this set is inconsistent. Thus, there is a finite subset of this set $\{\mathbf{C}_1, \mathbf{C}_2, \mathbf{C}_3, \ldots, \mathbf{C}_k, \sim\text{Ex}\mathbf{b}\}$ which is inconsistent and therefore formula $\mathbf{C}_1 \rightarrow (\mathbf{C}_2 \rightarrow (\mathbf{C}_3 \rightarrow \ldots (\mathbf{C}_k \rightarrow \text{Ex}\mathbf{b})\ldots))$ is a thesis. Hence $\mathbf{C}_1 \rightarrow (\mathbf{C}_2 \rightarrow (\mathbf{C}_3 \rightarrow \ldots (\mathbf{C}_k \rightarrow \text{Ex}\mathbf{b})\ldots))$ belongs to $\boldsymbol{w}$ and, by (A1), (R1) and (R2), $\mathbf{aC}_1 \rightarrow (\mathbf{aC}_2 \rightarrow (\mathbf{aC}_3 \rightarrow \ldots (\mathbf{aC}_k \rightarrow \mathbf{a}\text{Ex}\mathbf{b})\ldots))$ also belongs to $\boldsymbol{w}$. But formulae $\mathbf{aC}_1$, $\mathbf{aC}_2, \mathbf{aC}_3, \ldots,$ and $\mathbf{aC}_k$ belong to $\boldsymbol{w}$, and by (R1), $\mathbf{a}\text{Ex}\mathbf{b}$ also belongs to $\boldsymbol{w}$. Thus, by (A7), $\mathbf{a/b}$ belongs to $\boldsymbol{w}$ and, by (A6), any formula depicted by scheme $(\mathbf{bC} \rightarrow \mathbf{aC})$ also belongs to $\boldsymbol{w}$. Hence $\{\mathbf{C} : \mathbf{bC} \; \epsilon \; \boldsymbol{w}\} \subseteq \{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{w}\}$ and therefore for any $\boldsymbol{v}$, if $\{\mathbf{C} : \mathbf{aC} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$, then $\{\mathbf{C} : \mathbf{bC} \; \epsilon \; \boldsymbol{w}\} \subseteq \boldsymbol{v}$. Thus, $\boldsymbol{v} \mathbf{R_a} \boldsymbol{w}$ implies that $\boldsymbol{v} \mathbf{R_b} \boldsymbol{w}$.

It completes the proof that the structure $M^* = < W^*, P_i^*, R^*, +^*, R_i^* >$ is an ontological model. I shall call it *canonical ontological model*. For the canonical ontological model holds the lemma to the effect that for any formula **A** and any $\boldsymbol{w} \; \epsilon W^*$, $\boldsymbol{w} \models^{M^*} \mathbf{A}$ if and only if $\mathbf{A} \; \epsilon \; \boldsymbol{w}$. I shall call it *the fundamental lemma*.

The proof of the lemma is of course by induction on the construction of formulae. The definition of the canonical ontological model assures that for any propositional letter p_k, and for any $\boldsymbol{w} \; \epsilon W^*$, $\boldsymbol{w} \models^{M^*} p_k$ if and only if $p_k \epsilon \; \boldsymbol{w}$. In

case of propositional connectives $\sim$ and & you rely on the maximal consistency of each $\boldsymbol{w}$, to assure you that $\mathbf{A} \, \epsilon \, \boldsymbol{w}$ if and only if it is not the case that $\sim\!\mathbf{A} \, \epsilon \, \boldsymbol{w}$ and that A & B ϵ $\boldsymbol{w}$ if and only if $\mathbf{A} \, \epsilon \, \boldsymbol{w}$ and $\mathbf{B} \, \epsilon \, \boldsymbol{w}$.

The case of one-place object operator $\mathbf{a}$ is a standard one. The induction hypothesis is that for any $\boldsymbol{w} \, \epsilon \, W^*$, $\boldsymbol{w}\!\models^{M*} \mathbf{A}$ if and only if $\mathbf{A} \, \epsilon \, \boldsymbol{w}$. Now, suppose $\mathbf{aA}$ belongs to $\boldsymbol{w}$. Hence if $\boldsymbol{v}\mathbf{R_a}\boldsymbol{w}$, then $\{\mathbf{B} : \mathbf{aB} \, \epsilon \, \boldsymbol{w}\}\subseteq \boldsymbol{v}$ and therefore $\mathbf{A} \, \epsilon$ $\boldsymbol{v}$. Thus, by the induction hypothesis, if $\boldsymbol{v}\mathbf{R_a}\boldsymbol{w}$, then $\boldsymbol{v}\!\models^{M*} \mathbf{A,}$ hence $\boldsymbol{w}\!\models^{M*}$ $\mathbf{aA}$. Next, suppose that $\boldsymbol{w}\!\models^{M*} \mathbf{aA}$. Thus, if $\boldsymbol{v}\mathbf{R_a}\boldsymbol{w}$, then $\boldsymbol{v}\!\models^{M*}\mathbf{A}$ and, by the definition of the canonical ontological model and by the induction hypothesis, if $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\subseteq \boldsymbol{v}$, then $\mathbf{A} \, \epsilon \, \boldsymbol{v}$. Hence, no maximal consistent set of formulae includes the set $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\cup\{\sim\!\mathbf{A}\}$and therefore this set is inconsistent. Thus, there is a finite subset of this set $\{\mathbf{B}_1, \mathbf{B}_2, \mathbf{B}_3,\ldots, \mathbf{B}_k, \mathbf{A}\}$which is inconsistent and therefore formula $\mathbf{B}_1 \to (\mathbf{B}_2 \to (\mathbf{B}_3 \to \ldots (\mathbf{B}_k \to \mathbf{A})\ldots))$ is a thesis. Hence $\mathbf{B}_1 \to (\mathbf{B}_2 \to (\mathbf{B}_3 \to \ldots (\mathbf{B}_k \to \mathbf{A})\ldots))$ belongs to $\boldsymbol{w}$ and, by (A1), (R1) and (R2), $\mathbf{aB}_1 \to (\mathbf{aB}_2 \to (\mathbf{aB}_3 \to \ldots (\mathbf{aB}_k \to \mathbf{aA})\ldots))$ also belongs to $\boldsymbol{w}$. But formulae $\mathbf{aB}_1, \mathbf{aB}_2, \mathbf{aB}_3, \ldots,$ and $\mathbf{aB}_k$ belong to $\boldsymbol{w}$, and by (R1), $\mathbf{aA}$ also belongs to $\boldsymbol{w}$.

The only essentially new cases are the symbols of existence (Ex), possibility (Pos) and well-foundation (/).

To prove that $\boldsymbol{w}\!\models^{M*} \mathrm{Ex}\mathbf{a}$ if and only if $\mathrm{Ex}\mathbf{a} \, \epsilon \, \boldsymbol{w}$, at first suppose that $\boldsymbol{w}\!\models^{M*}$ $\mathrm{Ex}\mathbf{a}$. Hence, $\boldsymbol{w} \, \mathbf{R_a}\boldsymbol{w}$ and, by the definition of M^*, $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\subseteq \boldsymbol{w}$. Thus, any formula depicted by scheme $\mathbf{aB} \to \mathbf{B}$ belongs to $\boldsymbol{w}$. But, by (A3), $\mathbf{aEx}\mathbf{a}$ belongs to $\boldsymbol{w}$, and therefore $\mathrm{Ex}\mathbf{a}$ also belongs to $\boldsymbol{w}$. Next, suppose $\mathrm{Ex}\mathbf{a}$ belongs to $\boldsymbol{w}$. Thus, by (A2), any formula depicted by scheme $\mathbf{aC} \to \mathbf{C}$ belongs to $\boldsymbol{w}$. Hence $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\subseteq \boldsymbol{w}$ and, by the definition of M^*, $\boldsymbol{w} \, \mathbf{R_a}\boldsymbol{w}$. Therefore $\boldsymbol{w}\!\models^{M*} \mathrm{Ex}\mathbf{a}$.

To prove that $\boldsymbol{w}\!\models^{M*} \mathrm{Pos}\mathbf{a}$ if and only if $\mathrm{Pos}\mathbf{a} \, \epsilon \, \boldsymbol{w}$, at first suppose $\boldsymbol{w}\!\models^{M*}$ $\mathrm{Pos}\mathbf{a}$. Hence, $[\boldsymbol{w}]^{\mathbf{Ra}} \neq \emptyset$ and therefore there is a maximal consistent set of formulae $\boldsymbol{v}$, such that $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\subseteq \boldsymbol{v}$. Thus, $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}$is a consistent set and therefore any formula depicted by scheme $\mathbf{aC} \to \sim\!\mathbf{a}\!\sim\!\mathbf{C}$ belongs to $\boldsymbol{w}$. Let $\mathbf{1}$ abbreviates the arbitrary chosen tautology of propositional logic. Of course, by (R2), $\mathbf{a1}$ belongs to $\boldsymbol{w}$. Hence, $\sim\!\mathbf{a}\!\sim\!\mathbf{1}$ belongs to $\boldsymbol{w}$ and, by (A5), $\mathrm{Pos}\mathbf{a}$ belongs to $\boldsymbol{w}$. Next, suppose $\mathrm{Pos}\mathbf{a}$ belongs to $\boldsymbol{w}$. Hence, by (A4), any formula depicted by scheme $\mathbf{aC} \to \sim\!\mathbf{a}\!\sim\!\mathbf{C}$ belongs to $\boldsymbol{w}$ and therefore $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}$is a consistent set. Thus, there is a maximal consistent set of formulae $\boldsymbol{v}$, such that $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\subseteq \boldsymbol{v}$ and, by the definition of M^*, $[\boldsymbol{w}]^{\mathbf{Ra}} \neq \emptyset$. Therefore $\boldsymbol{w}\!\models^{M*} \mathrm{Pos}\mathbf{a}$.

To prove that $\boldsymbol{w}\!\models^{M*} \mathbf{a}/\mathbf{b}$ if and only if $\mathbf{a}/\mathbf{b} \, \epsilon \, \boldsymbol{w}$, at first suppose $\boldsymbol{w}\!\models^{M*} \mathbf{a}/\mathbf{b}$. Hence, $[\boldsymbol{w}]^{\mathbf{Ra}} \subseteq [\boldsymbol{w}]^{\mathbf{Rb}}$ and, by the definition of M^*, for any $\boldsymbol{v}$, if $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\subseteq$ $\boldsymbol{v}$ then $\{\mathbf{C} : \mathbf{bC} \, \epsilon \, \boldsymbol{w}\}\subseteq \boldsymbol{v}$. But, due to (A3), $\mathbf{bEx}\mathbf{b}$ belongs to $\boldsymbol{w}$, and therefore for any $\boldsymbol{v}$, if $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\subseteq \boldsymbol{v}$ then $\mathrm{Ex}\mathbf{b}$ belongs to $\boldsymbol{v}$. Hence, no maximal consistent set of formulae includes the set $\{\mathbf{C} : \mathbf{aC} \, \epsilon \, \boldsymbol{w}\}\cup\{\sim\!\mathrm{Ex}\mathbf{b}\}$and therefore this set is inconsistent. Thus, there is a finite subset of this set $\{\mathbf{B}_1, \mathbf{B}_2, \mathbf{B}_3,\ldots, \mathbf{B}_k, \sim\!\mathrm{Ex}\mathbf{b}\}$which is inconsistent and therefore formula $\mathbf{B}_1 \to (\mathbf{B}_2 \to (\mathbf{B}_3 \to \ldots (\mathbf{B}_k \to \mathrm{Ex}\mathbf{b})\ldots))$ is a thesis. Hence $\mathbf{B}_1 \to (\mathbf{B}_2 \to (\mathbf{B}_3 \to \ldots (\mathbf{B}_k \to \mathrm{Ex}\mathbf{b})\ldots))$ belongs to $\boldsymbol{w}$ and, by (A1), (R1) and (R2), $\mathbf{aB}_1 \to (\mathbf{aB}_2 \to (\mathbf{aB}_3 \to \ldots (\mathbf{aB}_k \to \mathbf{a}\,\mathrm{Ex}\mathbf{b})\ldots))$ also belongs to $\boldsymbol{w}$. But formulae $\mathbf{aB}_1, \mathbf{aB}_2, \mathbf{aB}_3, \ldots,$ and $\mathbf{aB}_k$ belong to $\boldsymbol{w}$, and by (R1), $\mathbf{aEx}\mathbf{b}$ also belongs to $\boldsymbol{w}$. But, by (A7), any formula depicted by schema

$\mathbf{aExb} \rightarrow \mathbf{a/b}$ belongs to $\boldsymbol{w}$, and therefore $\mathbf{a/b}$ also belongs to $\boldsymbol{w}$.

Next, suppose $\mathbf{a/b}$ belongs to $\boldsymbol{w}$. Hence, by (A6), any formula depicted by schema $\mathbf{bC} \rightarrow \mathbf{aC}$ belongs to $\boldsymbol{w}$, and therefore $\{\mathbf{C} : \mathbf{bC} \,\epsilon\, \boldsymbol{w}\} \subseteq \{\mathbf{C} : \mathbf{aC} \,\epsilon\, \boldsymbol{w}\}$. Thus, for any $\boldsymbol{v}$, if $\{\mathbf{C} : \mathbf{aC} \,\epsilon\, \boldsymbol{w}\} \subseteq \boldsymbol{v}$ then $\{\mathbf{C} : \mathbf{bC} \,\epsilon\, \boldsymbol{w}\} \subseteq \boldsymbol{v}$. Therefore, $[\boldsymbol{w}]^{\mathbf{Ra}} \subseteq [\boldsymbol{w}]^{\mathbf{Rb}}$ and $\boldsymbol{w} \models^{M^*} \mathbf{a/b}$.

Proof of theorem 4. In order to show that, a formula is a thesis of modal ontologic if and only if it is an ontologically valid formula it is sufficient to prove that any thesis is an ontologically valid formula and that any formula, which is not a thesis is not ontologically valid. The proof of the first implication requires the establishment of the ontological validity of all axioms and the demonstration that the rules of inference (R1) and (R2) preserve ontological validity. It could be easily done. To prove the converse implication, suppose a formula $\mathbf{A}$ is not a thesis. Then $\{\sim\mathbf{A}\}$ is a consistent set. Thus, there is a maximal consistent set of formulae $\boldsymbol{v}$, such that $\{\sim\mathbf{A}\} \subseteq \boldsymbol{v}$. Hence, by the definition of M^*, for some $\boldsymbol{w} \,\epsilon\, W^*$, $\sim\mathbf{A}$ belongs to $\boldsymbol{w}$, and $\mathbf{A}$ doesn't belong to $\boldsymbol{w}$. Therefore, by the fundamental lemma, for some $\boldsymbol{w} \,\epsilon\, W^*$, $\boldsymbol{w} \not\models^{M^*} \mathbf{A}$, and so, $\mathbf{A}$ is not ontologically valid.

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On the Development of Scholarly Communication.
A Philosophical Approach to the Communication History

Abstract

The study considers a significant philosophical problem: what is the impact of means and forms of communication on social practices? Plato in the *Phaedrus* wrote that the art of writing (as a mean and form of communication) transforms our ability to remember. In this article, I demonstrate the importance of the problem and I investigate the transformations of scholarly communication in contemporary science. The idea of Open Science is known as a model for the scientific practices. In this study, I extend the existing approach and I define the idea as a set of rules (norms, instructions) for academic practices. I assume that scholarly communication is a foundation of Open Science. Furthermore, I present three domains of Open Science: the Open Access, the Open Data, and the Citizen Science. The main problem, however, is how to philosophically interpret the transformations of scholarly communication's practices. The value of this approach lies in a perspective of the philosophy of communication that can be very effective in characterizing the sociocultural transformation.

1. Introduction

The article presents how the transformations taking place in scholarly communication may be philosophically interpreted. The development of communication technologies and the changes in the views of scientific practices (including the ideas of how to do science, to disseminate knowledge, and how to communicate between disciplines) transformed the scientific practices themselves. I am interested in the transformation which began with the advent of the Internet's popularity in the early 90's of the twentieth century and led to the creation of the idea of "Open Science". This matter is used for a practical illustration of the philosophical problem of the search for the origins of cultural change and the related issue of communication's influence on social practices. Some related considerations can already be found in Plato's *Phaedrus* and *Seventh Letter*,[1] that describe the destructive con-

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[1] Plato, *The Seventh and Eighth Letters*, transl. W. Hamilton. Middlesex 1973, 344C–344E.

sequences of the invention of writing.[2] I intend to demonstrate that the changes in contemporary science can also be analysed in such a manner – oriented to the transformations of communication practices.

The purpose of this article is to show how the practices and their principles which constitute "Open Science" may be the research subject within the philosophically oriented *communication history*. I will demonstrate that the foundation of Open Science is *scholarly communication* – which changes due to the transformation of its media and collective view aspects.

The history of scholarly communication is written primarily from the informatological, bibliometric or rhetorical perspective. Authors focus on the economic aspect of the changes brought about by the emergence of *digital information*.[3] I, on the other hand, propose studies within the framework of the philosophy of communication which focus on the cultural character of communication practices.

Since the emergence of modern science in the seventeenth century, the task of scholarly communication was primarily to publish. It can be said that at that time the scientific public sphere was born, as defined by Juergen Habermas. The space of that sphere not only allows for publication of the results of experiments and considerations, and for popularization of new solutions, but also enables verifications and discussions.[4] In order for scientists to be able to pursue this objective effectively, it is necessary to have the possibility of a unrestricted exchange of thoughts, ideas, concepts through scientific publications.

The beginning of the last century brought about rapid boom of science, universities, which entailed an increase in the number of researchers. That has resulted in an increase in the number of scientific publications[5] and the resulting information overload,[6] which causes numerous problems.[7] Scientists were no longer able to bring out their own publications; it was taken over by commercial publish-

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[2] R. Burger, *Plato's Phaedrus*, Alabama 1980.

[3] R. Ekman, R.E. Quandt, *Technology and Scholarly Communication*, London 1999.

[4] J. Habermas, *The Structural Transformation of the Public Sphere. An Inquiry into a Category of Bourgeois Society,* transl. T. Burger, Cambridge 1991.

[5] Between 1650 and 1950 approximately 60 000 journals were founded. Currently there are about 24 000 active, reviewed scientific journals (see: P.O. Larsen, M. Ins, 'The Rate of Growth in Scientific Publication and the Decline in Coverage Provided by Science Citation Index', *Scientometrics* 84 [3] (2010), pp. 593–595). Of course, this figure is only an approximation, since it al depends on the definition of a journal and what the term "scientific" means. Yet another issue is how many of these journals actually have an impact on science (see: E. Garfield, 'Significant Journals of Science', *Nature* 264 [5587] (1976), pp. 609–615).

[6] M.J. Eppler, J. Mengis, 'The Concept of Information Overload. A Review of Literature from Organization Science, Accounting, Marketing, MIS, and Related Disciplines', *The Information Society* 20 [5], pp. 325–344.

[7] Julian Cribb and Tjempaka Sari Hartomo, writing about the development of scientific knowledge, stated: "Scientific knowledge is now said to double about every 5 years, but its distribution among the seven billion citizens of Planet Earth proceeds far less rapidly. While the number of scientific papers published grows dramatically with each passing year, the rate at which their essential knowledge is transmitted to ordinary people who might use it in their lives lags far behind. Indeed, it has been claimed that up to half the world's published scientific papers are never read by anyone other than their authors, editors and reviewers – and 90 percent are never cited." J. Cribb, S. Tjempaka, *Open Science. Sharing Knowledge in the Global Century*, Collingwood 2010, p. 1.

ing houses (later by large publishing groups such as Springer, Elsevier and Wiley). This contributed to a greater professionalism of scientific publishing and facilitated the work of the researchers, however, it also became the cause of "foreclosing" of publications. Researchers increasingly had to seek institutional access to scientific articles of their co-workers and colleagues. It is possible for academic libraries to purchase access to databases of publications, however, it limits their recipients to the staff affiliated at a given university or research institute. The free circulation of ideas and concepts was, thus, delayed.

However, the spread of the Internet at the end of the twentieth century facilitated the emergence of a number of initiatives aimed at improving scholarly communication, including creation of the movement for open access to scientific publications and the rapid development of Citizen Science. The Internet offered a chance to return to the practice of free communication based on scientific publications. This in turn contributed to a change in perception of what science is and how it should be practised, which resulted in discussions about its "openness" and in considerations on what *Open Science* can be like. In this article, I assume that Open Science is not so much a "new science" or an "opening of science", but it is primarily a restoration of its inherent feature of openness in scholarly communication.

The issue of Open Science will be analysed from the perspective of philosophy, which considers the historical transformations of communication practices. I assume after Karl-Otto Apel that analysing communication and understanding it as a key element of human activity is a very good starting point in philosophical analyses.[8] It could, therefore, be said that the considerations within this text are part of the *communication history* trend.[9]

Therefore, the subject of my considerations is the collection of scientific and communication practices, which constitutes what I call "Open Science". These practices can be reduced to three main areas: the Open Access, the Open Data, the Citizen Science. Each of these areas of Open Science operates efficiently due to *scholarly communication*, for that reason I call it a foundation of the Open Science. Thus, I see *scholarly communication* as a key element which not only enables science to function, but also allows it to be understood. In this perspective, communication is for me what language is for Ernst Cassirer – in relation to other symbolic forms (such as art, myth, religion or science) which can be understood because of it.[10]

This article consists of four sections. The second section defines what the Open Science is and characterizes its three main areas. Then, in the third section

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[8] K.-O. Apel, *The Transcendental Conception of Language-Communication and the Idea of a First Philosophy*, [in:] H. Parret (ed.), *History of Linguistic Thought and Contemporary Linguistics*, New York 1976, pp. 32–61.

[9] For a discussion of what *communication history* and its research subject are, see my works: E. Kulczycki, 'Communication History and Its Research Subject', *Analele Universitatii Din Craiova, Seria Filosofie* 33 [1] (2014), pp. 132-155 and E. Kulczycki, 'On the Philosophical Status of the Transmission Metaphor', *Central European Journal of Communication* 7 (2014), pp. 175-188.

[10] E. Cassirer, *The Philosophy of Symbolic Forms. Volume Two: Mythical Thought*, trans. R. Manheim, New Haven 1955.

scholarly communication is characterized and the meaning of the term is clarified. Section four contains a proposal to adopt scholarly communication as a subject of study of communication history. I demonstrate how the relationship between the collective view and the media aspect of scholarly communication can be described, and I indicate the consequences of such an approach and how it can be used in further studies.

2. Three areas of Open Science

I undestand science and communication as areas of symbolic culture, which is distinctively human activity. I adopt the concept of *culture* after Ward Goodenough, who defines it as everything that one should know or believe in order to function in a society in such a way as to be acceptable.[11] Science consists of social practices of scholars within which scientific knowledge is produced, e.g. through the use of scientific methods. The knowledge must be intersubjectively communicable and verifiable – both of these conditions can be met thanks to scholarly communication.

Under the concept of science, I mean the range of social practices, which started to be constituted in the seventeenth century and continues today. With the advent of modern science the first scientific journals appeared – with a model example of the *Philosophical Transactions of the Royal Society* started in 1665. The emergence of scientific periodicals is sometimes called "the first scientific revolution", which was made possible through the spread of printing.[12] Of course, Kuhn's concept of *scientific revolution* and the related understanding of the scientific *paradigm* must not mislead us: science in the seventeenth and eighteenth century not so much changed its paradigm, but rather created it.[13] Thus the *second scientific revolution* is a return to what made possible the first one: a universal dissemination of scientific knowledge. Bartling and Friesike describe the issue in the following manner:

> The first scientific revolution happened when the publishing of scientific
> papers became the prevailing means of disseminating scientific knowl-

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[11] W. H. Goodenough, 'In Pursuit of Culturei', *Annual Review of Anthropology* 32 [1] (2003), p. 6.

[12] In this context, I use the terms "the first scientific revolution" and "the second scientific revolution" after Sönke Bartling and Sascha Friesike, who presented them in *Opening Science*. The book was publisher on 31 January 2014 published by Springer. However, it is not only the content of the book that is important here: this publication was created in on-line editors (Google Docs), and from the beginning the readers could see how it was created, they could propose amendments and changes (entered after editing by the authors). It is the realization of the postulates of Open Science in its entirety. Publication – in addition to the classic versions of the book (paper and ebook) – is licensed under Creative Commons (CC-BY-NC) on the project's website: <http://book.openingscience.org/> – therefore, the references to the publication in this article do not include page numbers, only the title and author. On a side note, the immutable pagination of scientific publications (e.g. PDF files) is one of the key formal determinants of scientific publications. However, in the context of mobile formats (EPUB, Mobi) it is an issue that science communication must deal with. The version of the book used here is from the September 15, 2013. The book was accessed on 3 January 2014.

[13] T.S. Kuhn, *The Structure of Scientific Revolutions*, Third Edition, Chicago 1996.

> edge. Our scientific culture developed around this. Today the Internet provides novel means of publishing and we are in the 'legacy gap' between the availability of these tools and their profound integration into the scientific culture (second scientific revolution).[14]

Therefore, it is reasonable to consider the formation of science in the seventeenth and eighteenth century and the Open Science of the twentieth and twenty-first centuries as stages of the same process. Martin Nielsen writes explicitly about "a second open science revolution extending and completing the first open science revolution, of the 17th and 18th centuries".[15] Therefore, the Open Science refers to all three main areas of scientific practice: research process, research data and scientific publications. I assume that Open Science can be defined as a set of rules (standards, instructions) referring to the scientific and academic practices.[16] The Open Science above all indicates standards and directives: what should be studied, published, communicated, and how it should be done. Recalling the three main elements of scientific practices, the following list presents what should be of interest to scientific practices: (1) the research process, (2) the data, and (3) the scientific publications. The condition of *openness* of these elements demonstrates how it should be studied, described and published. Thus, I assume that the three areas of the Open Science are: (1) the Citizen Science, (2) the Open Data and (3) the Open Access. Thus, the areas of the Open Science can be defined by three conceptual "What – How" pairs: (1) Research Process – Citizen Science; (2) Research Data – Open Data; (3) Publications – Open Access. Let us move on to their brief characterisation.

The first indicated area is the C i t i z e n   S c i e n c e, in which there are three main trends of opening the research process. The first of these is associated with the inclusion of volunteers in the work of scientists. Originally the term meant the scientific involvement of "non-scientists", amateur-hobbyists, who had to collect data for scientists. The volunteers help with basic work or make the computing power of their computers available to researchers. In 1900, The Audubon Society began the Christmas Bird Count initiative. Nowadays, with the development of the Internet, the *Citizen Science* increased considerably. Users are involved in major projects such as *Galaxy Zoo*,[17] in which volunteers classify galaxies online, by recognizing the basic geometric figures. Projects carried out in the open research process use various methods to engage participants: from gaming mechanisms

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[14] S. Bartling, S. Friesike, *Towards Another Scientific Revolution*, [in:] S. Bartlin, S. Friesike (eds.), *Openning Science*, Springer 2014, pp. 3–15.

[15] M. Nielsen, *Reinventing Discovery. The New Era of Networked Science*, Princeton 2011, pp. 183–184.

[16] When writing about scientific practices, I mean practices that are constituted by the *scholarly communication* also in the *social sciences* and *humanities*, not only in *science*. Scientific knowledge is produced in the framework of *science*, but the reflection created within the humanities cannot be denied its value: both types of practices focus on different areas. We must also remember that the scientific results achieved in *science* are not always the result of the exclusive work of scientists but also increasingly of amateur volunteers (the section on Citizen Science elaborates more on the issue).

[17] The project can be found at <http://www.galaxyzoo.org>. Accessed on 11 January 2014.

(such games as *Mole Bridge*, *Fold It*) to quizzes (*Spectralgame*, *Annotathon*). However, the open research process is not only volunteers performing simple tasks. The second trend of entering into the research process is to conduct research within the *Open Notebook Science* – the researcher not only informs about the results of the scientific process, but also presents the entire ongoing process of data collection, processing and publishing. Each stage of the study is recorded (or written) and made accessible – mostly on a website, which is the "open notebook", on the blog or by means of tools based the wiki solution. Within this formula, the information which is presented is not only about the final data (successful results), but also about unsuccessful experiments, less significant results, false premises. The third way to enter into the research process is by collaborating with volunteers who themselves constitute the research material.[18] One such example might be the *Cancer Commons* project,[19] in which the patients with one of three types of cancers provide medical information about themselves, which is used to improve the treatment of the diseases.

The second area of the Open Science is the O p e n D a t a. This area is not uniform for all fields of science. In many disciplines the research data in a digital form have been available for years (e.g., since the '70s of the twentieth century in structural biology). The development of science disciplines increasingly enables the creation of great repositories of data which is the basis for the publication of research results. However, more and more often it is not enough to share an article at the time of publication, as the development of scholarly communication infrastructure has introduced technological conditions for the dissemination of unanalysed raw research data. In genomics, the "Fort Lauderdale agreement" is applied i.e., an agreement to share data, which provides the authors of the experiment with the priority to publish analyses of the genome).[20] While other researchers may use the data for detailed research without any restrictions. The research data are the basis for verifying the conducted experiments and the published results of research. Only with empirical data are we able to verify the correctness of procedures and inferences. It is also very important for another reason: when sources, which became the basis of "failed" experiments or the reason for not confirming hypotheses, are made available, we enable other researchers to learn from mistakes already made and to move to other directions.

The third area of Open Science is the O p e n A c c e s s. Scientific publications are the basis for interaction between scientists. Articles and books allow citizens to find out what research is funded with their taxes. The movement of the Open Access to scientific publications dates back to the 60s of the last century – it is related with the launch of the *Educational Resources Information Center* (ERIC) by the U.S. Department of Education's Office of Educational Research and the Improvement and the National Library of Education. Of course, other key intermediate events of the process can be identified, such as the ARPANET

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[18] P. Szczęsny, *Otwarta Nauka, czyli dobre praktyki uczonych*, Toruń 2013, pp. 21–22.

[19] The project can be found at <http://www.cancercommons.org/>. Accessed on 11 January 2014.

[20] P. Szczęsny, *Otwarta Nauka...*, p. 14.

project launched in 1969, or the foundation of the AGRICultural OnLine Access in 1970. However, the key turning point in the constitution of this area of Open Science are '90s of the last century and the advent of the Digital Age.[21] It is related to the huge growth of the Internet, launching first websites, email communications, electronic journals and repositories of scientific texts. The development of the medium has enabled a completely different way of thinking about publishing practices (therefore changed perceptions of scientific practices – how they could or even how they should be implemented). It transpired that the solution met with strong interest from researchers and the number of publications available in open access continues to grow.[22]

The term Open Access means technically unrestrained (i.e., free – without the necessity to create an account or log in to the site) access to articles published in scientific journals and books. Such access can be made possible in two different ways – it depends on who is to ensure that the condition of openness is fulfilled: the publisher or the author. Thus, the *Gold Open Access* and the *Green Open Access* are distinguished. Gold Open Access is such a form of the access provision, which is guaranteed by the publisher (of journals, books). This means that the publisher does not charge for access to the text (downloading, reading online) – the cost of publication of the text in such case is covered by the author (financed from a research grant, by the scientific institution, or the researchers themselves). *Green Open Access* is associated with self-archiving of work by the authors themselves: most often a pre-print version of the text which was sent to a publishing house, an institutional repository or to portals dedicated to research. Self-archiving does not require financial resources – authors do not pay for sharing their texts. The development of the Open Access initiative was accompanied by the spread of new legal possibilities fostering such solutions. One of the most interesting is the Creative Commons licences, which offers the possibility to publish articles and books so as to allow readers maximum freedom, i.e. with permission not only to read and download files, but also to create derivative works (such as translations or remixes).

It should be remembered that these three areas do not exist in a vacuum. Their existence and development opportunities are provided by *scholarly communication*. I have not market it as a separate area, as it permeates all scientific practices – each of the three areas of Open Science pursues its objectives through scholarly communication. Therefore, it should be rather viewed as an additional layer (foundation) of these practices, not as a separate area.

This is obviously not the only possible attempt to describe the debate on the openness in science. Benedikt Fecher and Sascha Friesike proposed a very interesting classification of discourses on the term Open Science. They described, in a convincing way, the ongoing debate in the model of "Five Open Science schools of thought". They distinguished the *Democratic* school that focuses on the production of knowledge available to everyone, the *Pragmatic* school that focuses

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[21] P. Suber, *Open Access*, Cambridge 2012.
[22] M. Laakso, P. Welling, H. Bukvova, L. Nyman, B.-C. Björk, T. Hedlund, 'The Development of Open Access Journal Publishing From 1993 to 2009', *PLoS ONE* 6 [6] (2011), pp. 7–9.

on opening of the process of knowledge production and the use of the "wisdom of the crowds". The third school is the *Infrastructure*, for which it is crucial to produce tools and platforms that serve scientists to collaborate on the Internet. The fourth school – *Public* – recognizes the creation of science accessible to citizens as a decisive aspect of Open Science (Citizen Science, Science Blogging). Whereas the fifth school – *Measurement* – focuses on the production of new scientiometric tools (e.g., *Altmetrics*, open peer review). These various schools of thought focus on specific elements of scientific practices. I indicated three main areas and an "additional layer". When we look at both categorizations more closely, we notice that they are similar to each other and corresponding pairs of concepts (*ideas*) may be indicated:

1. *Democratic* school with the: Publications – Open Access pair.
2. *Pragmatic* school with the: Research Data – Open Data pair.
3. *Public* school with the: Research Process – Citizen Science pair.
4. *Infrastructure* and *Measurement* school with the focus on the *Scholarly Communication.*

Although both approaches to Open Science appear to be similar, they place different emphases on the key issue – from the perspective of considerations presented here – of scholarly communication. This will result in a different approach to communication practices, either as a foundation or just as an element of the Open Science. Therefore, let us discuss the scholarly communication itself.

3. The role of Scholarly Communication in Science

The understanding of communication adopted here comes from the constitutive (interactive) approaches. I acknowledge that communication is a kind of activity, and thus it is rational; it requires and is subject to interpretation and that at least two persons using signs participate in it. Thus, I assume that communication can be understood on the basis of a given culture. A set of communication activities on the social level is here referred to as communication practice by means of which a given culture is (re)produced.

One type of communication practices are practices of scholarly communication. Each practice is implemented at individual and social levels. The individual level is a specific action, the social level – that is, for example, various communication practices – allows an implementation of activities and at the same time maintains the social need which induced the specific action (individual level of practice). This can be illustrated as follows: at the level of an action (the communicative one) a specific scientist publishes a scientific article through which they contact scientists, promotes his work in the discipline, etc. While at the social level such communication practice maintains the functioning of science, which is a kind of social practice (based e.g., on the communication practices of publishing). Thus, communication research is a part of the scientific process, not a mere supplement to it.

Scholarly communication is constituted by practices of researchers and academics that consist in publishing and disseminating the results of research, criticism, polemics, by means of scientific publications (journals, articles, books, as

well as science blogs, microblogs). A key aspect of these publications is reviewing them before publication, although the model of reviews is also being transformed (from *double blind review* to *open peer review*).

The literature on the subject contains various terms, whose scope of meaning sometimes overlaps.[23] In this article, I am interested in *scholarly communication*, however, there is also the term *scientific communication*, which refers to explaining and popularizing science by columnists, journalists (but non-scientists), as well as the term *science communication*, which denotes the promotion and clarification of research results by scientists (therefore, *scholarly communication* could be considered a component of *science communication*). These distinctions result from a more primary division of communication practices related to science into two types: communication within the group of scientists (internal communication in science) and the communication for the purpose of explaining and popularizing of research (external communication in science). The first type includes such practices as publishing scientific papers, blogs, managing profiles on social networking sites for scientists, analysing and using scientometric indicators (e.g., Impact Factor or *Altmetrics*). The second type involves, among others, the creation of popular scientific texts, creating events and focuses primarily on the popularization of science in the society. Of course, these two types of communication practices complement and influence each other. The way how a communication practice functions and is implemented results from two aspects: (1) the media aspect and (2) the collective view one.

T h e   M e d i a   A s p e c t of a particular practice stems from the *media*, which are used to perform a particular communicative action (and consequently the communication practice itself). I assumed that we use signs to communicate – it is made possible by the *means of communication* (a given means is a *medium*). This may be e.g., language, pen, typewriter, computer, video camera. A particular medium is used for communication in certain forms: oral, written, audiovisual, graphic, etc. Thus, the shape of a particular practice is affected by the media aspect: a scientific conference proceeds differently (it is a typical scholarly communication practice) when a group of scientists meets in one place and discusses an issue (use of language and oral forms) from communication performed in the framework of a conference call – although the language signs are still used, the "perfection of the audiovisual form" is much more important (whether there is no delay in the transmission, whether the sound is clean and all the participants of the debate see each other at the same time).

T h e   C o l l e c t i v e   V i e w   A s p e c t of communication practice is constituted by such content of the collective experience that allows (but also affects) the way of understanding, implementation and description of what a given communication is, what it is based on, how it should be "executed" to achieve success

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[23] I. Mahmood, R. Hartley, J. Rowley, 'Scientific Communication in Libya in the Digital Age', *Journal of Information Science* 37 [4] (2011), pp. 379–390; H.A.J. Mulder, N. Longnecker, L.S Davis, 'The State of Science Communication Programs at Universities Around the World', *Science Communication* 30 [2] (2008), pp. 277–287; R. Vanderstraeten, 'Scientific Communication: Sociology Journals and Publication Practices', *Sociology* 44 [3] (2010), pp. 559–576.

(of course, if the aim of communication may be considered in terms of success). The collective views[24] on scholarly communication practices (shorter: views on scholarly communication) refer to, among other things, concepts related to communication processes (such as a community of communicating researchers, news, publication), beliefs ("the purpose of the article should be indicated", "the sources of quotations and borrowings need to specified", "access to scientific publications should be open") and values (e.g., "it is right that taxpayers receive messages about science financed by them", "good publication is used to present original results", "scientific reasoning is good, when it is clear and understandable"). It is the collective view aspect which bears the expression of the "need for openness in science." The views determine the way to implement scholarly communication itself, however, this realization is possible thanks to the media, i.e., thanks to the media aspect of the practice. These relations between the aspects themselves, but also between the aspects and the communication practice, are reciprocal. A change in the views on scholarly communication affects the media aspect (what are the means of communication and how they are used in scholarly communication), while the change in the media aspect (e.g., the emergence of the Internet) affects the views of the scholarly communication practice itself. Furthermore, if we perceive scholarly communication as a fundamental process for science, then it should be recognized that transformation of scholarly communication (resulting from changes in its aspects) will have an impact on science itself. Let us then consider how this mutually constitutive impact can be described and made into an object of research of communication history

4. Scholarly Communication as a Research Subject of Communication History

I treat social practices which constitute *scholarly communication* as a research subject of communication history. Communication history is interdisciplinary. The research is carried out from different research perspectives – by media experts, philosophers, communication researchers, communicologists, literature specialists or historians. I am interested in the philosophical reflection on how the object of research is constructed in the context of communication history, i.e., study of which ideas, phenomena or practices helps to better understand and describe communicative actions.

I also assume that a particular research object, which *scholarly communication* is, should be examined in the diachronic perspective. Since I assumed that a specific communicative action acquires its cultural meaning by being a part of cultural practice, while the practice depends on the state of the culture (resulting from, e.g., historical changes), it should be recognized that communication itself

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[24] In this article, I use the term "collective views", although the literature on the subject offers also other terms, such as: "collective representations", "collective ideas", "collective attitudes" or "mental equipment". I do so in order to avoid various erroneous connotations and to emphasize that the ways of organizing the collective unconscious (*mentalité*) consist of e.g., representations or concealments, which express the collective concepts of the world, images, myths and values recognized by the community, or those which had an influence on it.

is also formed in a historical process. This means that the study of the *scholarly communication* history should include an analysis of historical change of the relationship between the practice itself and its collective view and medial aspects. I assume that in order to understand how scholarly communication was transforming throughout history an analysis of these practices in a broader cultural dimension is required. This means that there is a need to examine not only the development of the media enabling implementation of communication, but also of the views on scholarly communication and of the transformations of the science itself resulting from changes. The key issue here is the study of the collective views, since the development of the media is analysed more frequently – however, such analyses of the Open Science are "one-dimensional". They emphasize the key role of the medium by which to approach the heavily *technological determinism* in its simplest form – criticized very often and correctly.[25]

Opening the scientific process, access to publications and empirical data is enabled through the increasingly effective media. There is no doubt about it. However, not only the impact of the media on the practice of scholars should be examined, but also the impact of the collective views – on the media (their capabilities and limitations) and on the practices (which science is intended to do) – on the media aspect of the practices themselves. Such perception of *scholarly communication* transformation will make a more holistic look at scientific practice possible. The application of this method obviously requires further theoretical research, however, a heuristic description may be attempted, to stipulate how specific practices in the field of scholarly communication could be analysed in the framework of historical communication research. Let us then consider a canonical practice – the publication of research results in scientific journals.

Publication of scientific articles began in the seventeenth century, with the development of modern science and the emergence of the first periodicals. The first scientific papers emerged from the transformation of earlier forms of writing: letters and essays.

Since that time the number of people involved in science has increased dramatically and and around 1850 it reached a million scientists, increasing 1.5 century later to almost 100 million – the current estimate of the number of people involved in science.[26] While studying the history of communication practice, it can be concluded that scientific journals appeared in the seventeenth century, as – owing to the spread of the printing press – there was such a possibility).[27] Of course, the form of journals and articles evolved, with time footnotes and endnotes appeared, guidelines for creating bibliographies were created and attaching abstracts to articles became a standard. The journals also started to be published in an electronic form, and now very commonly they indeed appear only in the digital form. The study of these changes: analyses of changes in the style of scientific articles, of the

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[25] E. Kulczycki, 'Transformation of Science Communication in the Age of Social Media', *Teorie Vĕdy / Theory of Science* 35 [1] (2013), pp. 7–9.

[26] S. Bartling, S. Friesike, *Towards Another Scientific Revolution...*

[27] D. Raven, 'Elizabeth Eisenstein and the Impact of Printing, *European Review of History. Revue Europeenne d'histoire* 6 [2] (1999), pp. 223–234.

language used, the rhetorical figures, the methods of referring to literature, attaching additional items (abstracts, keywords, etc.), have been successfully carried out in many studies.[28] Alan G. Gross, Joseph E. Harmon and Michael Reidy – the authors of an very interesting monograph *Communicating Science: The Scientific Article from the 17th Century to the Present* – presented the history of research on scientific articles and distinguished three dominant perspectives: the rhetorical, the philosophical and the literary.[29] Each of them focuses on the transformation of what I referred to as the media aspect of communication practice. However, the authors of the *Communication Science...* realize that such research can be extended in order to get a better understanding of the history of communication practices. When presenting the objective of their research, they write:

We hope to give the reader a sense of what it was like to be a scientific communicator, say, a German chemist in the early 18th century or a British physiologist in the late 19th century. In each case, we have a man trying to convey an experimental result, in the first by means of a vocabulary of the five senses, in the second by means of a highly developed technical vocabulary. We want readers to see how different were the communicative horizons of these two men, both fully committed to the same task of conveying knowledge of the natural world. We believe that only by a careful analysis of such texts as these will readers develop a sense, albeit a second order sense, of being *there*.[30]

In the above quotation, there are two key elements. First of all, an indication that research on the media aspect or a rhetorical analysis is not enough. One should also take into account the research on what these authors call *communicative horizons*, which I define with the term the *collective view aspect* of communication practices. Secondly, we must not forget that the historical sources themselves are a kind of "vehicle" for this aspect: texts which are available to us through a *medium*.

A fuller understanding of these phenomena is possible when we keep the collective view aspect in mind: what do certain actions result from, the use of particular media, why trust those and not other media? It should be noted that with the increase in the number of researchers the level of professionalism of scientific practices rose and the importance of groups of scientists grew as well. This resulted in a need to develop a system of publishing which allowed the acknowledgement of: the contribution of many authors and their co-authorship of an invention, discovery, analysis; and at the same time helped inform the widest possible number of scientists. The researchers saw discoveries and publications as "their own" – not anonymous, but created by particular researchers. Taking into account other phenomena of the time, such as emerging modern form of copyright (the period of national laws in the eighteenth century and the internationalization of copyright law in the nineteenth century), and it becomes clear that the development of the publishing practice was not only correlated with the development of the media.

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[28] See: M. Pera, *The Discourses of Science*, transl. C. Botsford, Chicago 1994.

[29] A.G. Gross, J.E. Harmon, M. Reidy, *Communicating Science. The Scientific Article from the 17th Century to the Present*, Oxford 2002.

[30] *Ibidem*, p. 11.

Of course the media support it, but they too are shaped by the collective views on scientific practices or even the media themselves. For example, it is a rather popular belief that the printed book is more important than the one available only in a digital form – this collective view, shared by researchers in the twenty-first century, not only affects the assessment of the book, but also the development and use of the medium (print, electronic publications). This in turn can lead to various changes within science itself (e.g., a printed publication will not – due to limitations of circulation – reach a potentially great number of interested scientists).

Therefore, *scholarly communication* may be studied not only by informatologists, book historians, but also by communicologists and communication philosophers who want, in their research, to emphasize the collective view aspect of the practice. An indication of the methods of testing the relationships between thus defined collective views and the media of scholarly communication requires further discussion and elaboration. The philosophical perspective in the study of communication practices should focus primarily on the cultural nature of these activities – not on the quantitative aspect (e.g., journals' circulation, article structure), but on the qualitative element of the research objects: the circulation of journals should be seen not only as demand and printing capacity, but also as interest in a particular field of science. Because of this reason – not because of media development – scientific journals crash after two centuries. The structure of an article should be seen not only in the light of editorial requirements and ways of reducing costs (e.g., the size of the article), but above all from the perspective of how scholarly communication should be practised: the emergence of abstracts is not a result of the transformation of the media aspect, but of the collective view one – the editors have simply come to the conclusion that it saves time for both readers and Investigators.[31] Transformations taking place in scholarly communication at the beginning of the twenty-first century can be better understood when observed in the context of historical changes of communication practices.

5. Acknowledgments

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[31] *Ibidem*, p. 13.

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The Arts and the Promotion of Capabilities Approach in Times of Crisis. Martha Nussbaum's Philosophy from the Perspective of Political Aesthetics[1]

Abstract

The paper attempts to demonstrate that the relevance of Martha Nussbaum's philosophy for the promotion of capabilities stems from its politico-aesthetic character. It is argued that Nussbaum's account of practical rationality (compatible with the theory of the human good expressed in the language of capabilities) draws on politico-aesthetic motifs. The cultivation of this type of rationality through the medium of the arts and the humanities extends our understanding of human development beyond a narrow wealth-focused conception towards a broader capabilities-based approach.

In one of her recent books, *Not for Profit. Why Democracy Needs the Humanities?* Martha Nussbaum offers a bold diagnosis of a crisis. Published in 2010, the text begins with the mention of the then economic crisis, only to immediately shift readers' attention to a different crisis, which, simultaneously, "goes largely unnoticed". This "silent crisis", as Nussbaum describes it, involves the crisis in education.[2] Schools and universities all over the world increasingly focus on sciences, which yield commensurate and practical results, thus neglecting the (seemingly?) much more "intangible" humanities and arts. Obviously, these two tendencies do not come unrelated. Changes in education are at least partly motivated by economic anxiety, which sees scientific knowledge and technology as remedies for the current difficulties. From this perspective, the humanities and the arts may seem a bit of a luxury, distracting our attention from the real issues at hand.

Nussbaum, however, points that there is much more to these disciplines than this view would grant, as they yield important and independently valuable insights. To put it simply – for the time being – the arts and the humanities (as their

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[2] M.C. Nussbaum, *Not for Profit. Why Democracy Need the Humanities?*, Princeton–Oxford 2010, pp. 1–11.

very name suggests) introduce the human perspective to the account of economic development. They remind us that human beings and human lives are the ultimate point of reference and rationale for development and the disciplines which drive it. Without the humanities and the arts we are likely to fall into the trap of economic fetishism, forgetting the purpose which the material goods were to serve.

I suggest that we use this juxtaposition of the two interrelated crises as the springboard for our considerations. To wit, my aim in this paper will be to demonstrate the need to grant the arts and the humanities the ongoing presence in the public life. This, in turn, can be achieved by pointing to their relevance to the multilayered human development, as it is understood in the capabilities approach in general and in Nussbaum's variety of this paradigm in particular. Nussbaum's basic idea is that the humanities and the arts rest on and cultivate the modes of reasoning which may complement qualitative economic thinking. Thus, my focus will be not so much on justifying the rich account of human development as on arguing that, assuming that this approach to development is the right one, the arts and the humanities deserve much more recognition than they enjoy in times of "the silent crisis".

Political aesthetics

My suggestion is that Nussbaum's insistence on the importance of the arts and the humanities can be seen as a politico-aesthetic stance.[3] As I understand it, the category of "political aesthetics" refers to a set of problems rather than to a distinct philosophical current or, even less so, a philosophical school. This approach comprises a variety of conceptions, loosely connected by not so much as common ideas as by certain motives. Among the most prominent contemporary representatives of this perspective are Crispin Sartwell, Jacques Rancière and Franklin R. Ankersmit, each of which, however, draws on many philosophical sources – from Plato, Machiavelli and British empiricism to Kant and the later tradition of German idealism. The scope of this paper does not allow or require us to delve into the riches of this heritage. On the whole, however, I propose to differentiate two basic varieties of the approach – a descriptive and a normative one. The perspective which I will adopt will be a combination of these two.

First of all, then, in a descriptive sense laid out by Sartwell, political aesthetics offers an understanding of the political. To wit, it represents this sphere as an arena where various claims, attitudes and doctrines meet. From this point of view, as Sartwell observes, politics emerges as the task of designing all these elements into a coherent structure. Beauty is a political principle of organization, which guides political practice in its attempts at acquiring social harmony.[4] For example, interpreted from this perspective, the Rawlsian model of justice as fairness –

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[3] It has to be underscored that Nussbaum has never explicitly described her project as politico-aesthetic. The aim of this paper, however, is to demonstrate that she takes up many politico-aesthetic themes and her philosophy can be regarded as an example of this approach, broadly understood.

[4] C. Sartwell, *Political Aesthetics*, Ithaca–London 2010, pp. 8–11.

the latter term being more or less synonymous with both "justice" and "beauty"[5] – may be seen as a pattern of designing political reality in accordance with the aesthetic ideal of plurality and subtlety (even if Rawls hardly ever uses explicitly aesthetic language). However, ideas of beauty may vary. The very concept of the affinity between the political and the aesthetic has been seriously discredited by Nazism (notably bemoaned by Walter Benjamin as the sign of "the aesthetization of politics"), which promoted the aesthetics of total unification. As a descriptive category, then, political aesthetics does not entail a pluralist and inclusive approach to socio-political issues (nor does it, it has to be underlined, necessarily imply the opposite).[6]

In order to work out such a conception, we have to employ political aesthetics in what I would like to call the normative sense. In this capacity, political aesthetics is primarily the reflection on public rationality, which tries to define what public reasoning *should be* like. We can find this motif in Ankersmit, who suggests that political theory ought to involve a type of immediate apprehension which will enable us to grasp the complexity and dynamics of political reality.[7] Political judgment resembles aesthetic judgment in that they both, in their sensitivity to the plural character and uniqueness of their objects, emulate the operations of *sensual perception* – Greek *aisthesis*. Thus, political aesthetics explores the similarities between aesthetic experience and political reasoning, which it sees as mediated by the affinity between these two and perception.[8]

In the normative sense, then, political aesthetics involves an attempt at drafting a more flexible, plurality-sensitive account of rationality. It presupposes the recognition of the complexity of socio-political reality, which it respects and tries to capture. But, like in the descriptive sense, this normative aspect poses certain threats as well. For if practical rationality shares with aesthetic judgments

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[5] E. Scarry, *On Beauty and Being Just*, The Tanner Lectures on Human Values delivered at Yale University, March 25 and 26 1998, pp. 62–75.

[6] C. Sartwell, *Political Aesthetics*, pp. 15-47.

[7] F.R. Ankersmit, *Aesthetic Politics. Political Philosophy Beyond Fact and Value*, Stanford 1996, pp. 14–15.

[8] It has to be admitted that for Ankersmit the aesthetic foundations of political theory set it apart from ethics. This is, however, only because he identifies ethics with the very type of principle-oriented reflection, which, he argues, is unsuitable for political reasoning (the main object of his criticism being Rawls's theory; *ibidem*, pp. 1–6). In fact, though, there is a long tradition of underlining an affinity between ethics and aesthetics. It is important to remember that we owe the modern meaning of aesthetics to Baumgarten, who in the 18th century defined aesthetics as "the critique of taste" (C. Sartwell, *Political Aesthetics*, p. 144). And the category of "taste" was then, in particular in the tradition of the British empiricism, understood as a type of sense – the ability to immediately grasp the beauty of an object. Inasmuch as for the philosophers such as Hume and Hutchinson, however, ethics rested on a similar type of cognition (the so called moral sense), the ethical and the aesthetic emerged as very closely connected indeed (J. Shelley, *Empiricism*, [in:] B. Gaut, D. McIver Lopes (eds.), *The Routledge Companion to Aesthetics*, London–New York 2013, pp. 36–45). Thus, the idea of sense-like perception, which gave rise to modern aesthetics, was simultaneously conceived as a template for ethical judgment. From this point of view, *aisthesis* emerges as the method of both ethical and aesthetic evaluation. These two realms seem likewise to require direct insight into and a response to a given situation in its specificity, which perception can provide. Therefore, contrary to Ankersmit's suggestion, it is conceptually possible to work out a politico-aesthetic project with ethical foundations.

sensitivity to concreteness, it can be subject to the narrowness of vision. Political designing guided by perception-based rationality may operate selectively, arbitrarily focusing on certain issues rather than other. Thus, perception is an ambivalent tool, which has to be employed with care.

My assumption in this paper is that this is exactly what Nussbaum's version of capabilities approach does. It lends itself to the interpretation in terms of political designing, which task is to be informed by the cultivation of diversity (that is, by a certain aesthetic ideal). Because of this, Nussbaum's theory has to be equipped with a proper model of reasoning, perception being one of the possible solutions to this challenge. Nussbaum is, however, aware of the dangers involved in perception. I suggest that her turn to the arts and the humanities is in fact motivated by the search for the remedy to these difficulties. In consequence, if we embrace the capabilities approach, we recognize the political importance of these disciplines.

Capabilities as a political conception of the human good

Nussbaum's capabilities approach is primarily an account of the political. That is, she uses the language of capabilities to talk about justified claims which political actors may have. Capabilities function as fundamental entitlements, which define the minimum requirements of justice. Such scope of Nussbaum's project distinguishes it from Amartya Sen's variety of the capabilities approach. For it is remarkable that Sen has never offered a catalog of central capabilities which would provide the basic criteria of social justice. Therefore, his theory could be applied on a larger scale – to the cases which Nussbaum would not find justified – but at the same time is less determinate and not supplied by a rough sketch of the human condition. We could say that the scope of Sen's approach extends along the vertical axis – being the broader one of the two – whereas Nussbaum moves along the horizontal one, providing a deeper insight into a good human life.

This is reflected in the senses of 'a capability' which the authors respectively adopt. Although they share the understanding of capabilities as "substantive freedoms" – to quote Sen's expression[9] – they differ as to what these consist in. As Crocker argues, for Sen 'capabilities' are primarily opportunities open to an individual. Since he does not work out an account of the human good, he does not refer these possibilities to the respective features of human beings which they realize. However, for Nussbaum, who has drafted a theory of the good, valuable human dispositions constitute a part of the meaning of the term 'capability'. The importance of a given possibility stems from its contributing to the actualization a certain disposition.[10]

This is not to say that Nussbaum's account is to be treated as a metaphys-

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[9] A. Sen, *Development as Freedom*, Oxford–New York 2001, p. 5.

[10] D.A. Crocker, *Functioning and Capability: The Foundations of Sen's and Nussbaum's Development Ethic*, [in:] M. Nussbaum, J. Glover (eds.), *Women, Culture and Development. A Study of Human Capabilities*, Oxford 2007, pp. 160–164. For the comparison of Nussbaum's and Sen's approaches see also: M.C. Nussbaum, *Creating Capabilities. The Human Development Approach*, Cambridge–London 2011, pp.19–20, 69–76 and J.M. Alexander, *Capabilities and Social Justice. The Political Philosophy of Amartya Sen and Martha Nussbaum*, Farnham–Burlington 2008, pp. 55–67.

ical theory of human nature. Since the early 2000s., which is when she developed her conception in the mature form, she has been presenting her project as a variety of political liberalism understood along the Rawlsian lines.[11] For Nussbaum, such status implies the following three features. First, it is freestanding, *i.e.* not grounded in any particular comprehensive (religious, metaphysical, ethical) doctrine but based on the ideas already present in the political culture of the democratic society and as such potentially compatible with each reasonable doctrine (thereby constituting the so called "overlapping consensus").[12] Secondly, it is partial in that it does not purport to be an exhaustive account of all the goods which citizens may value.[13] Finally, it is normative because it expresses an idea of a dignified human life, dignity being conceived in Kantian terms, as the quality of being an end in oneself and not merely a means to somebody else's goals.[14] Such status of the theory of the good already suggests its non-totalitarian and non-arbitrary character. The aim of the political practice is not to impose a set of objectives regardless of citizens' opinions. Rather, it should promote the values which emerge as commonly held out of the diversity of our beliefs. Thus, Nussbaum's conception is pluralist and open to the critical scrutiny of the most interested parties – that is: ourselves.

The content of the account also shows respect for diversity. It is Aristotelian-Marxist in that it assumes that human flourishing consists in the realization of the plurality of different valuable functionings in a manner which complies with human dignity. Thus, a good life is dynamic and complex, involving multiple activities pursued in a specific way.[15] The ability to undertake a given functioning is what Nussbaum calls a capability. This account distinguishes, firstly, basic capabilities – our innate equipment, such as the ability to learn a language, which enables us to develop certain valuable dispositions. These Nussbaum calls internal capabilities,

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[11] J. Rawls, *Political Liberalism*, New York 1993, 1996, pp. 11–15. In her early papers (such as *Nature, Function and Capability*, *Aristotle on Human Nature and the Foundations of Ethics*, *Human Functioning and Social Justice. In Defense of Aristotelian Essentialism*) she described this approach as internal essentialism, pointing to Aristotle as its precursor. According to this Aristotelian stance, any understanding of human nature reflects our beliefs about the constituents of a flourishing life (M.C. Nussbaum, 'Human Functioning and Social Justice. In Defense of Aristotelian Essentialism', *Political Theory* 20 (1992), pp. 207–208) and, therefore, is an intersubjective normative account rather than an objective description of the human essence. Political liberalism, adopted later by Nussbaum, is compatible with this assumption. What is less clear, though, is whether the content of her capabilities approach can be justified entirely independently of the broader Aristotelian framework, from which it stems. This, in turn, would cast doubt on its politico-liberal character (see, for example, S. Oon, *Culture and the Limits of Capability*, [in:] N. Weidtmann, Y.M. Hölzchen, B. Hawa (eds.), *The Capability Approach on Social Order. Proceedings form the Unseld Lecture 2010*, Berlin–Münster–Wien–Zürich–London 2012, pp. 95–108, S. Moller Okin, *Reply*, [in:] J. Cohen, M. Howard, M.C. Nussbaum (eds.), *Is Multiculturalism Bad for Women?*, Princeton 1999, pp. 115–131). I leave this issue aside, however, and proceed to present Nussbaum's project as if it could indeed be considered politico-liberal.

[12] M.C. Nussbaum, *Women and Human Development. The Capabilities Approach*, New York 2000, pp. 76, 83, J. Rawls, *Political Liberalism*, pp. 12–13, 133–172.

[13] M.C. Nussbaum, *Creating Capabilities*..., pp. 28–32.

[14] *Ibidem*, pp. 18-19, M.C. Nussbaum, *Women and Human Development*..., pp. 73, 84.

[15] M.C. Nussbaum, *Women and Human Development*, pp. 70–75.

this category constituting the second type of capabilities.[16] Internal capabilities are the states of the person "that are, so far as the person herself is concerned, sufficient conditions for the exercise of the requisite functions".[17] An internally capable individual is ready to perform the functionings which she values.

However, in order to achieve this state of internal maturity, we need a lot of external support. We rely on medical care to cultivate our bodily abilities, on education to develop intellectual capacities and on good interpersonal relationships to become sociable creatures. Moreover, once we have developed internal capabilities, we need the facilitating conditions to exercise them. We are fully capable of performing a given activity when we are mature enough to pursue it and when our environment permits us to do so. Thus, the role of external factors is twofold – they are necessary both for the development of and the possibility to realize our internal capabilities. Such state of the compliance between the internal and external is what Nussbaum describes a combined capability.[18] We could even say that such capabilities are capabilities *per se* because a person is truly able to perform a function when she is ready to do it and has an opportunity to realize this disposition.[19] To lead a flourishing existence is to constantly overcome external and internal impediments to the activities which we value. Therefore, it is this type of capabilities that constitutes Nussbaum's politico-liberal account of a good human life.[20]

The list drafted by Nussbaum offers an understanding of human flourishing which, as I have suggested, points to the relevance of both certain functions and the manner of their actualization.[21] This has to do with two capabilities from the list – practical reason (the capability to define and pursue one's own life goal) and affiliation. Nussbaum calls these architectonic, which means that they not only belong to the catalogue but also "organize and pervade"[22] all other elements. That is, we perform our valuable functionings within the frameworks of our life plans and in cooperation with other people. For dignified beings, the desirable manner to act is to act in accordance with their schemes of goals and in relationships with other dignified persons.[23] Thus, practical reason endows the list with the liberal character – since we exercise capabilities in accordance with our own schemes of

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[16] *Ibidem*, 83–84; M.C. Nussbaum, *Creating Capabilities* ..., pp. 20–21.

[17] M.C. Nussbaum, *Women and Human Development...*, p. 84.

[18] *Ibidem*, pp. 84–86; M.C. Nussbaum, *Creating Capabilities* ..., pp. 21–23.

[19] However, instead of reserving the term "capability" for such congruence between our dispositions and external conditions, Nussbaum has chosen to distinguish different types of capabilities. This emphasizes that the criteria of identifying important external factors is their relevance for the development and actualization of valuable dispositions.

[20] M.C. Nussbaum, *Women and Human Development...*, p. 85,

[21] The list includes the following items: life, bodily health, bodily integrity, senses, imagination, and thought, emotions, practical reason, affiliation (this includes the ability to form relationships with other people and protection from discrimination), relation to other species, play, control over one's political and material environment (*ibidem*, pp. 78–80; M.C. Nussbaum, *Creating Capabilities...*, pp. 33–34; M.C. Nussbaum, *Upheavals of Thought. The Intelligence of Emotions*, New York 2001, pp. 416–418).

[22] M.C. Nussbaum, *Creating Capabilities...*, p. 39.

[23] *Ibidem*, pp. 39–40; M.C. Nussbaum, *Women and Human Development...*, p. 72.

goals, we choose which of them we want to pursue and to what extent.[24] At the same time, affiliation introduces an element of mutual commitment. If I accept this capabilities-based account of the human good as valid, I acknowledge that each individual has claim to the central capabilities, even if I myself decide not to perform some of them.[25] In this manner, the architectonic capabilities contribute to the politico-liberal character of the list. Practical rationality builds respect for freedom into it, whereas affiliation represents the moment of the binding force.

From capabilities to practical rationality

If we now refer this account of the political to the politico-aesthetic language of designing, the following picture will emerge. Citizens are entitled to the plurality of valuable functionings, which they, moreover, pursue within the frameworks of various individual life plans. Thus, this image clearly evokes the aesthetics of diversity and complexity. The political is designed as pluralistic and intricate.

Here, then, we have an account of a good human life, which, provides a set of political objectives. To wit, it enumerates the basic criteria of justice and at the same time, given that justice is defined in the teleological language of capabilities, offers an understanding of the human development. As we have seen, it is conceived in terms of the ability to perform the plurality of valuable functions pertaining to various aspects of our existence. This is obviously a much broader approach then the one based on purely economic indices. Economic prosperity is woven into Nussbaum's account, if only because combined capabilities include external facilitating conditions, not the least important of them being material resources. The value of these is, however, relative to the value of the capabilities which they support. In other words, Nussbaum's understanding of development is built around the notion of human dignity, which is missing in the narrow, economic perspective.

Basing on this consensus, we next have to arrange for its application – that is: enable the adjudication of the claims to capabilities which citizens may raise. However, Nussbaum is insistent that capabilities are both non-commensurate and equally valuable. This means that there is no a priori hierarchy of basic entitlements (such as, for example, Rawlsian lexically ordered principles of justice), which would provide the pattern for their exercising. This points to the need to supply the politico-liberal conception with a model of practical reasoning. Since there are no readymade solutions, we have to be equipped with a model of rationality which will allow us to apply the capabilities approach. To this I presently turn.

Psychological and philosophical background – emotions

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[24] The distinction between capabilities and functionings and the emphasis on the former also pertain to this issue. As both Nussbaum and Sen underline, the criterion of development is the provision of important possibilities. Each person, however, has the right to choose whether they want to pursue them or not (M.C. Nussbaum, *Women and Human Development. . .*, pp. 86–96; A. Sen, *Inequality Reexamined*, New York–Oxford 1992, pp. 49–53).

[25] M.C. Nussbaum, *Creating Capabilities. . .*, pp. 28–32.

Nussbaum has been developing her account of practical rationality[26] since the beginning of her academic career, drawing on various philosophical sources. Because of her increasing interest in political liberalism, however, she has recently taken great care to supply it with a non-comprehensive basis so that it would truly fit within the general framework of her project, functioning as a "a reasonable political psychology".[27] Therefore, she looks to contemporary empirical psychology for a potentially sharable background, which she later interprets by means of philosophical tools.

For the philosopher, an important source of influence has been the psychoanalytical object relations theory (represented by such researchers as Donald Winnicott, William R.D. Fairbairn, John Bowlby, Daniel Stern[28]), which implies a picture of the human condition similar to the one implicit in Nussbaum's account. The main objective of this paradigm is to study the development of the human self by focusing on an infant's interaction with her surroundings. The assumption, then, is that we are needy creatures, who from the beginning have to look for external support – an idea that can easily be expressed in Nussbaum's language of capabilities.[29] In our infancy, this state of dependency is extremely acute. As yet completely incapable of catering for herself but also unaware of her subjectivity, an infant waivers between the sense of omnipotence (expecting that the world will be centered around her) and helplessness. To balance these experiences, she has to learn where the limits of her control over the world are. It is through these discoveries that she gradually acquires the sense of her separateness.[30] A crucial "object relation" in this process is the relationship with a parent (or, to speak more generally, a caretaker). As Winnicott observed, what marks the emergence of personal identity is "the ability to be alone in the presence of the mother". The sense of security provided by the caretaker enables the child to relax and discover her own inner life. Therefore, the development of the self is a response to the presence of another person, separate from *myself* and at the same time attentive to me.[31]

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[26] I adopt a working distinction between the terms "practical reason" and "practical rationality". I understand the former as a capability, that is the internal disposition of a person (ideally coupled with favorable external conditions) to define her own conception of a good life. I employ the latter notion as a methodological category and refer it to the general characteristics of practical inquiries. Ethics is the philosophical discipline which deals with this type of reflection. Nussbaum suggests that we follow ancient philosophy in the broad interpretation of ethics as the inquiry about a good human life (M.C. Nussbaum, *The Fragility of Goodness. Luck and Ethics in Greek Tragedy and Philosophy*, New York 2009, pp. 4–5).

[27] M.C. Nussbaum, *Political Emotions. Why Love Matters for Justice*, Cambridge–London 2013, p. 163.

[28] M.C. Nussbaum, *Upheavals of Thought...*, p. 180.

[29] Winnicott used the term "facilitating environment" to describe the importance of the surroundings for the infant's development (see, for example D.W. Winnicott, *The Concept of a Healthy Individual*, [in:] D.W. Winnicott, *Home Is Where We Start From*, New York–London 1990, pp. 185–186). Nussbaum's emphasis on the value of external support is the philosophical equivalent of this psychological idea.

[30] M.C. Nussbaum, *Upheavals of Thought...*, pp. 181–190; M.C. Nussbaum, *Political Emotions*, pp. 168–172

[31] M.C. Nussbaum, *Upheavals of Thought* ..., p. 206–209.

As psychologists agree, the cognition in this process often takes the form of rudimentary emotions. And this is where Nussbaum's philosophical intuitions pick up the lead. For the author is keenly interested in the philosophical accounts of emotions, working out her own – neo-Stoic, as she calls it – conception. The basic assumption which Nussbaum adopts is that emotions are not blind, irrational forces but intelligent responses. This was generally acknowledged in antiquity, the Stoic view, however, went so far as to identify emotions with judgments (or thoughts, to use a less restrictive expression, which Nussbaum recently favors[32]). The specificity of these judgments consists in their evaluative, eudaimonistic character. That is, an emotion is a thought that a certain good is crucial to my flourishing (and is currently in a particular situation – is threatened, has been lost, is close to me – depending on the type of emotion). Therefore, through emotions, we asses reality from the perspective of our idea of a good life. For the Stoics, this also meant that emotions were necessarily directed at external goods. Although Nussbaum is less dogmatic and does not want to build this aspect into their definition, she agrees with her predecessors that emotions ascribe intrinsic value to their objects. Thus, they do not amount to instrumental reasoning but are recognitions that certain elements are inherently worthy and *as such* matter to our flourishing. And given that, according to Nussbaum, our internal dispositions largely depend on external factors, most emotions will refer to external goods (or at least imply judgments about them). In emotions, we recognize our incompleteness and open up for support from without.[33]

If we now combine this philosophical account with the object relations theory, we will see that emotions play an important part in the development of the self because of their connection with the experience of one's neediness. They record the sense of dependency and as such help the infant gradually ascertain her limits.[34] Emotions, then, are at the roots of personal identity and – in consequence – practical rationality. A being, whose good has been characterized by Nussbaum's account, will employ emotions when reasoning about her flourishing. Emotions embody the type of reflection which is compatible with the status of the human good, as it is expressed in the language of capabilities.

However, emotions need to be cultivated. Since they express the infant's expectation that the world will cater for her needs, they are in their earliest form narcissistic and egoistic. Uncultivated, emotions can remain such – privileging an individual perspective and unresponsive to other people.[35] Thus, Nussbaum points to certain riskiness involved in ethics. There is "no way round" emotions because our practical reasoning will always largely depend on them. We have to work through them so as to counteract their dangerous elements.

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[32] M.C. Nussbaum, *Political Emotions*, p. 142.

[33] M.C. Nussbaum, *Upheavals of Thought...*,, pp. 19–88; M.C. Nussbaum, *The Therapy of Desire. Theory and Practice in Hellenistic Ethics*, Princeton–Oxford 2009, esp. chapters 9 and 10.

[34] M.C. Nussbaum, *Upheavals of Thought...*, p. 206.

[35] *Ibidem*, pp. 209–212; M.C. Nussbaum, *Political Emotions*, pp. 172–177.

Phantasia, fancy, imagination

What this process of maturation requires is the recognition of the autonomy of other people. As we have seen, a relationship with a caretaker is pivotal to the development of the self. Nussbaum's architectonic capability of affiliation conveys the same idea by suggesting that social cooperation is inherent in our beliefs about valuable functioning. Therefore, we usually pursue other external goods in the context of and through interpersonal relationships. The infant relies on her caretakers to provide her with everything which she needs. In order to overcome narcissism, she has to learn that the caretakers are not only external to her but also have their own inner lives. That is, she has to acknowledge that her flourishing depends on people who, too, follow their ideas of a good life. In other words, the infant must realize that she cannot claim all the attention of people around her and also – that she has to give something to the others as well.[36]

For this state of mutual interdependency, as Nussbaum calls it,[37] to develop, emotions have to work in tandem with another cognitive capability, *i.e.* imagination. Speaking in the language of the psychological research which she cites, this faculty is associated with the ability of perspectival thinking, which enables us to adopt various points of view, including those of other people.[38] Combing this insight with the Stoic and Aristotelian considerations[39] coupled with the Dickensian idea of "fancy", Nussbaum interprets imagination as the power to, first, endow an object with an inner life and, secondly, to see what the world may look like from the perspective of this form of life.[40] Imagination, then, involves the recognition that the object is actually a subject, whose point of view should be taken into account. In this sense, imagination provides a necessary completion to emotions. In combination with this capability, emotions directed at other persons are the recognitions that we rely on people, who live their separate lives. Moreover, we are able to place ourselves in their position and imagine what they may require of us.[41]

Nussbaum begins, then, with a sketch of practical rationality which matches

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[36] M.C. Nussbaum, *Upheavals of Thought...*, pp. 212–214, 224–229

[37] The term has emerged as a small correction to Fairbairn's idea of mutual dependence (*ibidem*, p. 224).

[38] M.C. Nussbaum, *Political Emotions*, pp. 156–157.

[39] For the Stoics an act of judgment – emotions being one of its type – consisted in assenting to or rejecting an appearance, *phantasmata* (M.C. Nussbaum, *Upheavals of Thought...*, pp. 37–38; M.C. Nussbaum, *Therapy od Desire...*, pp. 374–375). Aristotle held a similar belief with regard to emotions since he can be understood to have assumed that emotions presuppose taking a stance on information presented by imagination, *phantasia*. Both of the Greek terms derive from the verb *phainesthai* – to appear (*ibidem*, pp. 84–86) – and suggest that certain interpretative capacity (the general ability to make to world "appear" to us in one way or another) is involved in our emotional responses. Aristotle's *phantasia* refers to the capability to synthesize perceptual data and see a particular object as an object of a certain type (M.C. Nussbaum, *Aristotle's De Motu Animalium*, Princeton 1985, pp. 221–269). In a sense, then, imagination has a metaphorical dimension – it is the ability to perceive something as something else, for example, in the case of practical reasoning, as a good to be pursued.

[40] M.C. Nussbaum, *Poetic Justice. The Literary Imagination and Public Life*, Boston 1995, pp. 36–46.

[41] M.C. Nussbaum, *Upheavals of Thought...*, pp. 236–237.

her capabilities-based account of the human condition. But it also turns out that this model of reasoning is necessary if we are to approach other people as subjects of capabilities. Imagination encourages me to see another person as a dignified being – not a means to my purposes but an end in herself. This is the first step to acknowledging that she enjoys certain basic entitlements. By helping me to envisage her point of view, however, imagination additionally enables me to understand what she might need and expect from the world. Emotions, in turn, build interpersonal relationships, which involve the sense of responsibility for the good of the other. Thus, through imagination and emotions, I become aware that another person is not only dignified but also needy and that it is, at least partly, my task to support her. And this is what it takes to treat a person as a subject of capability. Moreover, imagination and emotions preserve the unique character of their objects. They grasp them in their concreteness and non-commensurability. As such, they are compatible with the focus on plurality and heterogeneity characteristic of capabilities approach.

Thus, emotions and imagination help us recognize the variety of human life plans and refuse to succumb to simplistic evaluations. We have yet to see in what sense this account is aesthetic and how it can be transplanted into the realm of public rationality. These two issues are connected, which is why Nussbaum's project can be regarded as politico-aesthetic.

The aesthetic

Where, then, do we find an aesthetic element in this account? In the first place, we have to underline the interpretative character of imagination and emotions. I have suggested the metaphorical quality of the former, this faculty being the ability to see an object as such and such, to transcend the mere observational data and grasp what is behind them (a person with a rich inner life).[42] Apart from that, since it allows us to "step in somebody else's shoes", imagination is the exercise in the creative changing of perspectives. In this sense, when we engage in imagining, we always resemble actors, who have to flexibly switch between various roles. Emotions also involve interpretative thinking. They are judgments which map the world for us, ascribing value to its elements.[43] Thus, as beings highly dependent on external support, we always perceive reality through the lenses of our ideas of a good life. For us, the world presents itself not as a neutral sphere but as the realm of meanings.[44]

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[42] See: footnote 39.

[43] M.C. Nussbaum, *Upheavals of Thought...*, p. 206.

[44] The idea of internal essentialism as the method of constructing an account of the human good can be seen as the reflection of this general tendency to interpret. We do not have an access to an objective theory of human nature, which would also define the human good. Instead, we can only rely on our own interpretations of human flourishing and these are largely the products of emotions and imagination. In Aristotle's conception, which inspired the idea of internal essentialism, there is a terminological link between this method and emotions and imagination. As we have seen, both of these capabilities are connected to the process of "appearing" (*phainesthai*). We could say that they make the world "appear" to us in a certain manner. "Appearances" are also at the beginning of the search for an account of the human good. For Aristotle sug-

We have seen, however, that these two faculties need to be cultivated. Following Winnicott, Nussbaum observes that emotions and imagination have the greatest chance to develop properly in the secure environment of childhood play. Winnicott located play in a "potential sphere", somewhere between the realm of pure fantasy and reality. It takes place in the external world and involves external objects and, at a later stage, people, which and who cannot be totally controlled by the child. And yet the rules which govern this "space" are somewhat laxer and more flexible, subject to players' decisions. This enables the child to experiment with human possibilities in a relaxed manner. Moreover, play involves symbolic thinking, whereby an object or a co-player is *imagined* as something or somebody else. Thus, when at play, the child takes on and encounters various roles, exploring different abilities and, at the same time, exercising imagination. This helps her interact with other participants, gradually teaching her how to cooperate with people.

What is important, Winnicott believed that the need to play never disappears. Not only does each human relationship contain an element of play – with its mutual responsiveness and imaginative role-taking[45] – but also play finds its representation in the realm of culture. Namely, for Winnicott the arts and culture are essentially the equivalent of the "potential space" of play in our adult lives. The sphere of artistic and cultural creation is likewise intermediate, both "less real" (than the everyday life reality) and "more real" (than the world of individual fancy). It is the realm where we can relatively safely explore different aspects of human lives, envisaging perspectives other than the one which we usually occupy. It also involves interaction between performers, performers and spectators and, ultimately, spectators and the work of art. Rules and meanings are negotiated in the process of constant interpretation.[46]

This continuity between play and art can be partly explained by the emotion of wonder, which they both activate. Although Winnicott does not refer to it explicitly, he mentions the delight which the child takes in her own creativity when she plays.[47] Nussbaum associates it with disinterested curiosity, "outward erotic movement toward the world and its alluring objects",[48] in which the child enjoys her ability to cognize reality and lets herself be surprised by it. Such tendency reveals the incipient capacity for wonder – an emotion "as non-eudaimonistic as an emotion can be".[49] Wonder is the delight in an object perceived as valuable in its own right. That is, in the emotion of wonder we appreciate the worth of an object

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gests that we should start with *phainomena* – "what appears to us" (M.C. Nussbaum, *Therapy of Desire...*, pp. 241–263). This is why emotions and imagination play an important role in producing the beliefs which later make up a conception of a good human life.

[45] M.C. Nussbaum, *Political Emotions*, pp. 180–181.

[46] D.W. Winnicott, *Transitional Objects and Transitional Phenomena* and *Playing. A Theoretical Statement*, [in:] D.W. Winnicott, *Playing and Reality*, London–New York 2005, pp. 1–34, 51–70; M.C. Nussbaum, *Not for Profit...*, pp. 99–101; M.C. Nussbaum, *Political Emotions*, pp. 177–182).

[47] M.C. Nussbaum, *Upheavals of Thought...*, p. 189.

[48] M.C. Nussbaum, *Political Emotions*, p. 174.

[49] M.C. Nussbaum, *Upheavals of Thought...*, p. 55.

independently of our prior ideas of a good life. This is the type of apprehension that we would associate with aesthetic experience, in which we disinterestedly marvel at the beauty of the work of art.[50]

Such an aesthetic emotion, however, has an important ethical dimension. In the first place, it seems that there is an element of wonder in the recognition of another person's dignity. To perceive her as an end in herself is to acknowledge her worth irrespective of one's own scheme of goals.[51] Secondly, coupled with imagination, which facilitates the recognition of another person's neediness, wonder can inspire concern for her. A wonderful thing, whose value I have grasped regardless of my idea of a good life, begins to matter for me and becomes a part of my eudaimonistic project.[52] Thus, when somebody has been presented to me in a wonder-inspiring manner, I can come to care for them, even if up until now they were indifferent to me. In conjunction with imagination, then, wonder broadens "the circle of our scheme of ends"[53] and helps us overcome the narcissist side of emotions.

Therefore, Winnicott's idea of play suggests a twofold relationship between the practical and the aesthetic. On the one hand, art emerges as the continuation of play. They both employ the same faculties, which, at the same time, are crucial to practical reasoning. Developed in the world of play, emotions and imagination can be further cultivated in the realm of art. Thus, artistic creativity and experiences may enhance our ethical sensitivity. On the other hand, perception of art can be regarded as, to some extent, exemplary for perception of other people. We should approach them with wonder, seeing them as beautiful and inherently valuable.

All this explains why the changes in education diagnosed by Nussbaum impede the promotion of capabilities. They hinder the development of the faculties which are necessary for practical reasoning compatible with this approach. Emotions and imagination need to be cultivated and this task depends largely on the arts and the humanities (which to a significant extent engage with criticism and theories of art but also play another role, which will be mentioned later). What is more, these disciplines may teach us how to employ the capabilities of emotions and imagination in the right manner – that is: how to perceive. To this problem we presently turn.

Perception

What is of our interest now is the method of making concrete decisions which a person characterized by the type of rationality sketched above might adopt. Here, again, Nussbaum points to art as the means of cultivating practical reasoning and, at the same time, explores the similarities between aesthetic and practical judgments. Yet again, the philosopher draws largely on Aristotle, which is why she often describes her account as "an Aristotelian conception of rationality".[54]

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[50] *Ibidem*, pp. 53–55.
[51] M.C. Nussbaum, *Poetic Justice...*, pp. 38–43; M.C. Nussbaum, *Women and Human Development...*, p. 73.
[52] M.C. Nussbaum, *Upheavals of Thought...*, p. 54.
[53] *Ibidem*, p. 55.
[54] M.C. Nussbaum, *The Discernment of Perception. An Aristotelian Conception of Pri-*

Arguably, this model of ethics could be considered as Nussbaum's own comprehensive doctrine regarding moral philosophy. This is not to say, however, that it could not be reconciled with her political liberalism as a part of "the overlapping consensus". That is, even though it should not be treated as a binding account of practical rationality, which ought to be used in the process of justifying political principles, it may be compatible with political liberalism and provide one of the possible ways of putting Nussbaum's politico-liberal capabilities approach into practice. This, indeed, seems to be the case. The "Aristotelian conception" rests on three basic assumptions, each of which can be referred to the psychologically supported account of rationality outlined above. Moreover, they also have the bearing for the promotion of capabilities, which makes the resulting theory suitable for public reasoning.

The choice of the term "perception", used in the description of the emotion of wonder, was not incidental. Nussbaum's account revolves around the idea of perceiving, drawing on the etymological links between *aisthesis* (perception) and aesthetics. As Nussbaum puts it:

> The person of a practical wisdom lies surprisingly close to the artist and/or the perceiver of art, not in the sense that this conception reduces moral value to aesthetic value or makes moral judgments a matter of taste, but in the sense that we are asked to see morality as a high type of vision of and response to the particular, an ability that we seek and value in our great artists.[55]

The three features of the model are as follows. First of all, it strongly relies on emotions and imagination. That is, we interpret the situation at hand largely by means of emotions and imagination, which help us perceive the values involved and enlarge our perspective by enabling us to envisage points of view of other persons.[56] And since these capabilities are sensitive to the unique qualities of their objects, they allow us to recognize an inherent value of a particular item. Therefore – and this is the second characteristic of the Aristotelian conception –

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vate and Public Rationality, [in:] M.C. Nussbaum, *Love's Knowledge. Essays on Philosophy and Literature*, New York–Oxford 1990, pp. 54–105. Nussbaum also describes this conception as "non-scientific", recalling Aristotle's criticism of Plato's idea of ethics. Plato believed that ethics could be modeled on scientific knowledge (*epistēmē*), in other words, that practical reasoning could yield as certain results as theoretical reasoning does (M.C. Nussbaum, *Fragility of Goodness...*, pp. 89–121, 290–317). For Nussbaum, this approach to ethics rests on three assumptions, which are the exact opposites of the ones adopted in her Aristotelian non-scientific conception sketched below (that is: commensurability of goods, the priority of general rules, the ethical irrelevance of emotions and imagination; eadem, *Discernment*, p. 55). We can find various examples of scientific ethics thus defined, utilitarianism being one of the most prominent examples. The type of rationality which goes with economy-focused accounts of development also belongs to this category. Empirical sciences are supposed to provide a universal model of rationality, which, therefore, becomes associated with quantitative thinking and application of general principles.

[55] M.C. Nussbaum, *Discernment of Perception...*, p. 84.

[56] *Ibidem*, pp. 75–82, M.C. Nussbaum, *Introduction: Form and Content, Philosophy and Literature*, [in:] M.C. Nussbaum,, *Love's Knowledge...*, pp. 40–43; M.C. Nussbaum, *Poetic Justice...*, pp. 53–78.

they enable us to acknowledge the plurality and non-commensurability of the goods to be taken into account in our reasoning.[57] When we perceive the world through the lenses of emotions and imagination, we choose to pursue many goals which are irreducible to each other and, therefore, impossible to be measured against one scale. The idea of the plurality of important capabilities, whose catalogue for each individual is not exhausted by Nussbaum's political conception, reflects the same assumption. Each capability represents an independent good, the lack of which cannot be compensated for by a surplus of a different value. Therefore, in our practical reasoning, we often face difficult, and sometimes even tragic, choices. When two capabilities clash (for example, political freedoms come in the way of the unlimited accumulation of wealth), we cannot trade one of the conflicting goods in for another.[58] Instead, practical rationality requires that we try to do justice to both of them.

The third feature of practical rationality answers to this challenge. Embracing Aristotle's idea of the ethical priority of the particular,[59] Nussbaum underlines that in practical reasoning, we always deal with concrete matters. That is, we make a decision in a specific, unrepeatable context, whose uniqueness we have to face in order to form a good judgment. We have to take into account all the goods involved in this particular configuration so as to determine how to meet various claims which they raise. This cannot be done on the basis of any prior orderings. Instead, Nussbaum says, quoting Aristotle, we should recognize that "the discernment rests with perception (*aisthesis*)".[60] In order to form a good judgment, we have to grasp the situation at hand in its complexity and uniqueness. This, again, requires that we allow for emotions and imagination in our reasoning. These capabilities enable us to employ general principles in the capacity of the Lesbian rule, which, in Aristotle's example, can bend to fit the shape of its object,[61] and aim at perceptive equilibrium – the state of coherence both within our account of the context and between this account and the accepted principles and beliefs.[62]

Thus, this method clearly draws on the idea of the affinity between the aes-

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[57] M.C. Nussbaum, *Introduction...*, pp. 36–37; M.C. Nussbaum, *Discernment of Perception...*, pp. 56–66; M.C. Nussbaum, *Fragility of Goodness...*, pp. 294–297.

[58] M.C. Nussbaum, *Creating Capabilities...*, pp. 35–39.

[59] M.C. Nussbaum, *Introduction...*, pp. 37–40; M.C. Nussbaum, *Discernment of Perception...*, pp. 66–75; M.C. Nussbaum, *Fragility of Goodness...*, pp. 298–306.

[60] Quoted in M.C. Nussbaum, *Discernment of Perception...*, p. 66.

[61] *Ibidem*, p. 70.

[62] Naturally, the idea of perceptive equilibrium refers to Rawls' notion of reflective equilibrium. These two differ in an important respect, however. Rawls insisted that we aim at the balance between considered judgments (that is common sense beliefs about practical matters) and general principles (J. Rawls, *A Theory of Justice. Revised Edition*, Cambridge 1999, pp. 40–46). Thus, his account refers to the beliefs which can be formulated in a relatively general and abstract manner. Nussbaum underlines that her approach is broader and more flexible in that it includes particular judgments which we make in a particular situation. We should achieve the coherence both between the beliefs of different generality, and between our ethical ideas on the whole and the perceptions of the specific context in which we make a decision (M.C. Nussbaum, *Perceptive Equilibrium. Literary Theory and Ethical Theory*, [in:] M.C. Nussbaum, *Love's Knowledge...*, pp. 173–175, 182–183).

thetic and the practical. Practical reasoning resembles aesthetic judgment in its sensitivity to the uniqueness of its object. It is immediate inasmuch as it involves the willingness to be surprised by and respond to the new configurations of elements. At the same time, though, it is mediated by general principles. Therefore, it could be compared to theatrical improvisation, in which actors follow the script while being attentive to other actors and the developing situation.[63] This suggests that practical rationality resembles not only the experience of art but also artistic activity itself. Thus, as quoted above, Nussbaum compares persons of practical reason to artists, "especially our novelists".[64] For it is in classic realist novels, such as the works of Charles Dickens and Henry James, that we find the most convincing displays of ethical perception. Here, then, Nussbaum again points to the arts as the means of cultivating practical rationality. Literary style (at least in the novels to which the philosopher refers) is designed to picture the method of perception because of the novels' engagement with the concrete, sensitivity to psychology and the appeal to emotions and imagination.[65]

On the whole, the model of perception seems compatible with Nussbaum's politico-liberal capabilities approach in two senses. Firstly, it provides a good method of the application of the approach, sharing its sensitivity to the plurality and non-commensurability of goods. Secondly, it employs the capabilities of imagination and emotions, which emerge as the crucial tools of perception. At the same time, the ethical relevance of these capabilities is supported by the psychological evidence gathered by Nussbaum for the purposes of the reasonable moral psychology, *i.e.* a non-comprehensive account of human moral development. Thus, it seems that the political advisability of Nussbaum's conception, which can be put into practice by means of perception, depends on whether emotions and imagination can really serve the goals of an inclusive socio-political project.

The impediments to perception

For it is here, in the realm of emotions and imagination, that we encounter the second of the two difficulties which, as I suggested at the beginning, haunt any politico-aesthetic enterprise, that is – the risk of arbitrariness and potential exclusiveness of perception. We have seen that Nussbaum presents her capabilities approach as a pluralist and politico-liberal conception, thus escaping the danger of imposing a simplified, comprehensive pattern of political design. The politico-liberal character of her project is also supposed to ensure its non-arbitrary character. If, however, emotions and imagination should turn out to be unreliable, the advisability of her politico-liberal conception could also be questioned.

The difficulty which we are facing now is the problem of extending the limits of compassion. This emotion plays a crucial role in public reasoning. Drawing on both Aristotle's analysis and the contemporary psychological research, Nussbaum interprets compassion as a response to somebody's suffering based on three thoughts. First of all, we judge the plight to be serious – we react with compas-

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[63] M.C. Nussbaum, *Discernment of Perception...*, pp. 93–97.
[64] *Ibidem*, p. 84.
[65] M.C. Nussbaum, *Introduction...*, pp. 23–29; M.C. Nussbaum, *Poetic Justice...*, pp. 1–12.

sion to the deprivation of certain fundamental goods (which in Nussbaum's terms would be described in the language of capabilities) experienced by another person. In this sense, compassion presupposes at least the ability to understand the importance of the lost item for the other person, and possibly even a rough agreement on the basic requirements of a flourishing life. Secondly, the suffering is perceived as undeserved by the sufferer. And, finally, there is the eudaimonistic judgment – we think of the other person's flourishing as in some way related to our own good life, which is why we care for her. This judgment is aided by the perception of the similarity of our possibilities. Again, like in the case of seriousness, it is easier to react compassionately to somebody's plight if we can envisage ourselves in the same situation.[66]

Thus, we could say that the scope of compassion is as broad as the sense of the commonality of the human condition. I have suggested that, on Nussbaum's account, affiliation represents the moment of moral commitment inherent in her theory of the good – to recognize somebody as the subject of capabilities is to accept one's own responsibility to support their flourishing. Compassion expresses just this attitude and, therefore, is crucial to the promotion of capabilities. In this emotion, we sympathize with the suffering of the other person because we feel an affinity with her and care for her well-being. These two elements, however, are interdependent. That is, although the sense of community motivates concern, it is my idea of eudaimonia that determines whom I am willing to recognize as a fellow human being, worthy of care. As an emotion, then, compassion is marked with locality. We are more likely to sympathize with people from our surroundings and therefore our images of "the humanity" often contain such arbitrary features as race, religion or nationality. This is reflected in the operations of imagination and, as a result, sensitivity to the particular hinders perception and engenders arbitrary social exclusions.[67]

In this sense, compassion – a model political emotion – is vulnerable to internal limitations, which stem from the narrowness of imagination. However, its operations can be also impeded from the outside. This is to do with our problematic relationship to our animal neediness. We have seen that the acknowledgement of individual imperfection may inspire us to open up for interpersonal relationships and recognize the value of other people for our flourishing. Yet, we have also said that emotions can take a narcissistic and possessive form, preventing us from perceiving the autonomy of other persons. Such response reflects the unwillingness to accept human vulnerability – a narcissistic individual recognizes that she is dependent on external support but she likes to believe that the people who provide it are totally under her control. In a yet more radical expression, though, the problematic relationship to one's own neediness can lead to the phenomenon which the Dutch primatologist Frans de Waal has described as anthropodenial. This term refers to the human tendency to deny the affinity between humans and

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[66] M.C. Nussbaum, *Political Emotions*, pp. 142–146; M.C. Nussbaum, *Upheavals of Thought...*, pp. 304–327.
[67] M.C. Nussbaum, *Political Emotions*, pp. 316–320; M.C. Nussbaum, *Upheavals of Thought...*, pp. 420–422.

other animals and, consequently, to refuse to acknowledge the vulnerability which goes with it.[68]

Nussbaum points that many emotions are based on such reaction to animality. Shame, for example, stems from the longing to transcend human limitations. We are ashamed of our weaknesses – and, most notably, of our bodies, which particularly vividly represent our vulnerability – because we aspire to an ideal of perfection and completeness. Although this emotion has a valuable aspect in that it motivates us to struggle against our limits (and, after all, this is what the exercise of capabilities consists in), it flows from the unrealistic wish to eradicate our imperfections and prevents us from coming to terms with our insufficiency. This has grave socio-political consequences. First of all, shame can influence our idea of a good life, eliminating elements which too vividly remind us of our vulnerabilities. This, in turn, determines whom we deem entitled to lead a good (in this case – more than human) life. For shame often causes stigmatization, when certain features, which reveal our weaknesses (such as disabilities, bodily disfigurements etc.), are marked as shameful and, therefore, socially excluding. In this way, the unstigmatized majority can enjoy the illusion of (at least relative) invulnerability.[69]

The same mechanism is at play in the case of another socio-politically undesirable emotion – the emotion of disgust. Following the extensive psychological research (mostly that of Paul Rozin), Nussbaum stresses that disgust develops rather late and is closely related to "the toilet training". This emotion is inculcated in children by society and is directed at the reminders of our animality (such as bodily fluids). Operating on the basis of the magical idea of "contagion", it expresses the unwillingness to be contaminated by the contact with its foul objects. Thus, like shame, it limits our ideas of a good life by suggesting the defiling character of animality. It can also lead to social exclusions since early disgust easily develops into "projective disgust", wherein disgusting features are ascribed to an excluded and persecuted social group (Jews, Afro-Americans, homosexuals, women). This, like stigmatization, gives the majority an illusion of cleanliness and invulnerability.[70]

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[68] M.C. Nussbaum, *Political Emotions*, pp. 159, 172–173.

[69] M.C. Nussbaum, pp. 359–364; M.C. Nussbaum, *Upheavals of Thought...*, pp. 190–200; M.C. Nussbaum, *Hiding from the Humanity. Disgust, Shame and the Law*, Princeton–Oxford 2004, pp. 172–221.

[70] M.C. Nussbaum, *Political Emotions*, pp. 182–191; M.C. Nussbaum, *Upheavals of Thought...*, pp. 202–206; M.C. Nussbaum, *Hiding from Humanity...*, pp. 73–213; P. Rozin, J. Haidt, C.R. McCauley, *Disgust: the Body and Soul Emotion*, [in:]. W.T. Dalgleish, M.J. Power (eds.), *Handbook of Cognition and Emotion*. Chichester 1999, pp. 429–445. Certain groups can be excluded because their physicality exposes our bodily weakness; sometimes shame and disgust can also mask earlier prejudices, which, therefore, go unscrutinized. For example, it seems that the disgust at bodiliness plays a large part in the exclusion of women and male homosexuals. Women, who menstruate and receive semen, have too much contact with animal fluids and, therefore, are "too bodily". The specificity of anal sex, with the images of the mixing of feces and semen which it evokes, arouses the same obsessions (which is probably why gay men are stereotypically represented as feminine; on disgust and homosexuality – M.C. Nussbaum, *From Disgust to Humanity. Sexual Orientation and Constitutional Law*, Oxford–New York 2010). In the case of Jews, however, the disgusting properties (for example, again, effeminacy) appear to

The problematic relationship to our animality, expressed in the emotions of shame and disgust, and the limits of compassion and imagination point, then, to the arbitrariness of perception and the exclusions which it motivates. If practical reasoning is to employ emotions, there is the risk that such blurred perceptions will influence our judgments, impeding the equal provision of capabilities. How can we combat these dangerous tendencies without losing the valuable insights which emotions yield?

Wonder and Socratic pedagogy

The first step to eradicate these difficulties is to acknowledge that they exist. As I have tried to demonstrate, Nussbaum believes that emotions and imagination (and, therefore, perception, as the type of reasoning based on these faculties) cannot be "done away with". They emerge as the forms of rationality compatible with our condition of capable beings. In a sense, then, the recourse to them seems inevitable – this is simply how we reason, given the status of our good. The insights which they provide are necessary for the promotion of capabilities approach with its sensitivity to the plurality of values and the focus on qualitative differences between people. Thus, we need to be aware of the weak points of emotions and imagination (as the methods of practical reasoning) so as to cultivate them in the desirable direction.

The means of such cultivation were already suggested when we discussed the phenomenon of wonder. In this emotion, we perceive certain objects as delightful in their own right and, therefore, worthy of concern. Thus, wonder can extend the limits of compassion, motivating care for other people simply because they appear as inherently valuable – as ends in themselves. It may also counteract the effects of shame and disgust by presenting its objects – certain groups or features – as beautiful and dignified or compatible with dignity. And this leads us, again, to art. For we have seen that wonder embodies the type of perception which is characteristic of aesthetic experience. Nussbaum's suggestion is, then, that we should turn to art in the search for wonder-inspiring representations of other people and ourselves (most importantly – of our bodies). Perceived through the medium of art, human beings can display their inner worth, which appears as beauty. Thus, such images may help us recognize the dignity of other persons and the entitlements which go with it. Out of disinterested wonder, concern develops.

To this we can add that art strongly appeals to emotions and imagination in general. As such, it is a suitable means of their cultivation. In order to refer concrete insights yielded by emotions and imagination to good principles, however, the influence of the arts has to be completed by the humanities. Nussbaum associates these disciplines with the Socratic spirit of critical self-examination. They teach us to approach our emotional and imaginative responses critically and enable us to detect any arbitrary, unreasonable ideas which these may contain. They probe for coherence, asking the perennial question "why?" or "for what reason"? Thus, the humanities call for justification and as such involve respect for our fellow human

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have been ascribed retrospectively because of the prejudice which had already existed.

beings, to whom we present our beliefs. By the same token, they motivate us to scrutinize the goals which we pursue. Among other things, then, they help us keep the aims of human development in focus.[71]

The relevance of the arts and the humanities for the capabilities approach is, then, twofold. First of all, these disciplines are necessary for the development and cultivation of emotions and imagination. These faculties, in turn, need to be employed in practical reasoning if capabilities approach is to be put into practice. Perception, which strongly relies on emotions and imagination, emerges as a method of reasoning compatible with the capabilities approach. Thus, the arts and the humanities are the best reminders of the rich, manifold account of development. If we do not want to forget about the human dimension of development, we, unsurprisingly, need to turn to the humanities.

Secondly, the arts and the humanities provide a good means of combating the dangerous elements inherent in emotions and imagination. Naturally, art can incite prejudices and exclusions by projecting disgust-arousing, discriminatory images. In its essence, it is neither fair nor unfair – it can be employed for various purposes. However, the arts provide invaluable resources, which, when coupled with critical thinking promoted by the humanities, can be used for the cultivation of inclusive, egalitarian attitudes.

Case studies

Nussbaum mentions various examples of such illuminating influence of art. After a short overview of some of these cases, I would like to complete Nussbaum's account with a few remarks about a recent urban political project drafted in the city of Wrocław, Poland. This, I will argue, can be interpreted as an extension of Nussbaum's ideas.

When speaking about the crisis in education, the philosopher points to John Dewey's and Rabindranath Tagore's theories, which she presents as inspiring alternatives to the contemporary science-focused models. Both the pragmatist philosopher and the Indian educator proposed more comprehensive education schemes, which spanned over the entirety of human knowledge. Among other things, Dewey and Tagore placed emphasis on the humanities and the arts. The former were meant to teach independent critical thinking in the process which Nussbaum calls Socratic pedagogy.[72] The latter were to ensure that the scope of reflection thus scrutinized transcends local commitments and reaches out further, possibly towards the humanity in general. And so, Dewey underlined that the arts develop the flexibility of imagination, which helps us accommodate things "beyond the scope of direct physical response"[73] – that is: transcend our most immediate, spontaneous point of view. Tagore advocated the use of many arts in education but he was particularly insistent on the importance of role-playing. He included

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[71] See: the chapter *Socratic Pedagogy*, [in:] M.C. Nussbaum, *Not for Profit...*, pp. 47–77 and the chapter *Socratic Self-Examination*, [in:] M.C. Nussbaum, *Cultivating Humanity. A Classical Defense of Reform in Liberal Education*, Cambridge 1988, pp. 15–49.

[72] M.C. Nussbaum, *Not for Profit...*, pp. 64–72.

[73] *Ibidem*, p. 103.

elements of drama and dance in his curricula because these performative arts can both inspire compassionate understanding between participants and teach them to appreciate the beauty of their bodies used as the means of artistic expression. Thus, they help us extend the limits of imagination and concern and, at the same time prevent, shame and disgust by presenting our animality as the source of delight.[74]

Such performative and interactive forms of art seem particularly important in the process of cultivating perception if this method is to serve the promotion of capabilities. Admittedly, Nussbaum draws many convincing examples from literature as well. Novels (and also poetry) are ethically valuable not only because of their form – the literary style being fit to present the method of ethical perception – but also because of their content. Literature can contribute to the combating of prejudices and exclusions by picturing members of oppressed minorities as dignified, fully human beings. Richard Wright's novel *Native Son* deals with the problem of racial hatred, Edward M. Forster's *Maurice* takes a stance on the oppression of homosexuals and the poetry of Walt Whitman may be read as the call for the reinterpretation of our physicality, which can change the image of social community[75]. On the whole, however, reading is a solitary exercise. It engages a single mind, presenting it only with imaginary characters. In a sense, then, it is monological – in the end, it is up to the reader to decide how to interpret a novel or a poem.

We do not have this luxury in socio-political reality. We encounter many people, whose beliefs and behavior elude our understanding. Perception is a response to somebody's appearing, which human beings, as independent agents, can to some extent create consciously. This is why it is so important to complete literary experiences with artistic activities which involve more interaction and, in this respect, more closely resemble the world of play. For Nussbaum, the paradigmatic examples of such enterprises are ancient tragic and comic festivals. During these theatrical performances people gathered to explore human vulnerabilities in either compassion-inspiring (in the case of tragedies) or amusing manner (in comedies[76]). Actors interacted with one another and the audience, thus learning to perceive in the response the other person's appearing.

Although in our times theatre no longer plays such important public role, the equivalents of these Greek performances can be found elsewhere. Most interestingly, Nussbaum points to various arrangements of urban space as the means of cultivating perception. These can involve single objects, such as The Vietnam Veterans Memorial in The Constitution Gardens in Washington. Made of shiny black stone, this monument resembles a book – its V-shaped structure encourages visitors to read the names of the dead curved in its luminous surface. The memorial is, therefore, highly individualized, commemorating not abstract ideas but concrete victims of the war. It also invites interaction and, quite literally!, auto-reflection – visitors can see their own and each other's faces mirrored in the

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[74] *Ibidem*, p. 103–106.
[75] See, for example: M.C. Nussbaum, *Poetic Justice...*, pp. 90–99.
[76] M.C. Nussbaum, *Political Emotions*, pp. 257–275.

shiny walls. In this way, the monument enables people to connect to each other in grief, at the same time reminding them of the human dimension of the tragedy. As such, it can be seen as a modern tragic festival, which inspires compassionate response to suffering.[77]

A comic counterpart of The Vietnam Veterans Memorial can be found in Chicago's Millennium Park. Anish Kapoor's Cloud Gate (or "The Bean") is also a reflectent structure, which, however, comically distorts spectators' bodies. Thus, Nussbaum suggests, it invites visitors to discover the playfulness of their bodies and, even more importantly, join in with other people – often complete strangers – in auto-ironic game of distorted reflections. Spectators are encouraged to reveal the awkwardness of their physicality to each other and respond with good humor to one another's funnily grotesque images. The Bean inspires, thus, spontaneous, communal befriending of human bodiliness, which goes against the tendencies present in the emotions of shame and disgust.[78]

What is particularly important is that the monument is a part of a larger structure – the Millennium Park. This, in turn, is the urban space designed for the playful interaction between citizens. The creation of such place marks the growing awareness of the socio-political significance of urban planning. It provides the sphere where people can appear to each other in wonderful and playful ways and as such may contribute to a more inclusive mutual perception of citizens. A similar idea was behind the recent reintegration of The University of Chicago with its neighborhood. Located in a poor and largely non-white part of the city, the university had tried to separate itself from its surroundings by its elevated Gothic architecture and fences. At the beginning of the century, however, it opened itself for the cooperation and integration with the neighborhoods. For example, it is involved in many initiatives in the adjacent Hyde Park, such as locating the new Reva and David Logan Arts Center near the park. This, again, creates a common space for people of different backgrounds to interact in a friendly environment and enjoy leisure on equal terms. In this manner, an urban arrangement facilitates a transformation of citizens' mutual attitudes.[79]

Nussbaum's examples of monuments and parks all speak of the importance of the aesthetics *of* and *in* urban space for the cultivation of perception. The manner in which public space is arranged, in particular by the presence of art, can make a difference. This assumption was adopted in the successful application for the title of European Capital of Culture 2016 submitted by the Polish city of Wrocław. I would like to conclude with a short overview of this project, which in many ways corresponds with Nussbaum's ideas outlined here. Most importantly, the application is worded in explicitly politico-aesthetic terms. The program offers to explore the "human moral faculty" as "the ability arising from the capabilities to perceive things and evaluate them as ones to be desired, or to be rejected".[80]

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[77] *Ibidem*, pp. 284–288.
[78] *Ibidem*, pp. 298–301.
[79] *Ibidem*, pp. 333–338.
[80] *Spaces for Beauty. Revisited. Wrocław's Application for the Title of European Capital of Culture 2016*, Wrocław 2011, p. 14.

Citizens-perceivers meet in urban spaces which are interpreted dynamically – as the spheres of interaction shaped by people's activities. The application intends to expose the twofold role of beauty in such environment. On the one hand, the medium of beauty facilitates a respectful attitude to fellow citizens. Again, to put it in Nussbaum's terms, if another person appears to me in a wonderful manner, I recognize her inherent value. On the other hand, the ability to not only perceive but also create beauty gives us the sense of agency. Thus, the program calls that spaces be opened up and beauty democratized. Urban spaces should become an environment in which citizens experience their own agency, not in the least by projecting their own images, which can be perceived as beautiful by other people.[81]

On the whole, both in Nussbaum's examples and in the case of Wrocław's application, the city emerges as the place in which citizens' mutual attitudes are shaped by aesthetic means. When art is introduced into public space, it ceases to be an exclusive museum matter and reveals its practical potential. Urban sphere, in turn, becomes the place of encounters (which is, by the way, how Wrocław has dubbed itself[82]), where people can gather and interact in various festivals – tragic, comic or yet other. These experiences can yield various insights. The Vietnam Veterans Memorial teaches compassion, The Bean helps us recognize the beauty of our bodies, Hyde Park directly refers to the problem of social exclusion and Wrocław's application exposes creativity as the source of human dignity. What all these examples have in common is that they prove that urban environment may inspire us to perceive other people as subjects of capabilities – needy, bodily and yet dignified active beings. The arrangement of public space can promote an inclusive, egalitarian approach to fellow citizens. Thus, it plays an important role in the combating of the dangerous aspects of emotions and imagination. The aesthetic potential of the cities is an important means of the cultivation of practical rationality.

Conclusion

The aim of this paper was to probe Martha Nussbaum's philosophy for theoretical assumptions which justify the ongoing presence of the arts and the humanities in the public life. I have suggested that the recognition of their value requires adopting a rich account of human development – such as can be expressed in the language of capabilities. These disciplines emerge as crucial to the promotion of such pluralist and intricate idea of human flourishing. Therefore, I have placed Nussbaum's project in the context of political aesthetics. I have attempted to show that her project can, indeed, be interpreted from this perspective because of, first, how she conceives the political (the problem of designing) and, secondly, because of the model of rationality and the means of its cultivation, which she proposes.

On the whole, Nussbaum alerts us to the fact that political philosophy is a

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[81] *Ibidem*, pp. 14–15, 39–44.
[82] *Ibidem*, p. 9.

risky quest, which has to be pursued with care. She exposes its links with ethics insisting that it cannot proceed without an understanding of what counts as a good human life and how we reason about it. Thus, it has to delve into ambiguous aspects of the human mind – emotions and imagination. Nussbaum believes that a decent socio-political project has to employ the resources provided by these faculties. Only with their help can a broad, pluralist and human-focused account of development – that is: capabilities approach – be promoted. But emotions and imagination need also to be permanently cultivated and scrutinized. This is where the arts and the humanities step in. These disciplines help us, first, develop the faculties in question and then, secondly, exercise them in the right manner. The humanities teach us critical thinking, which motivates as to analyze our own and each other's attitudes and probe for their coherence. The arts shape our perception, inspiring us to recognize the inner worth of other people and to come to terms with our own weaknesses.

The humanities and the arts can be promoted both by proper education schemes – which speaks directly to the problem of the "silent crisis" – and, more generally, by the engagement with their objects. In particular, as I have tried to demonstrate, urban space can be used to inspire the redefinition of citizens' mutual attitudes. Obviously, this is not to say that the popularization of the arts and the humanities exhausts the task of the promotion of capabilities. In order to put this account of human development into practice, we need good philosophical principles, policies, rights and, naturally, sufficient resources. However, this project cannot proceed without a certain type of reasoning. And this, as I have argued, can be taught through the media of the humanities and the arts.

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Human Capabilities in Contemporary Cities.
The Urban Social Engineering and its Limits

Abstract

The paper addresses the question of opportunities for the development of human capabilities in contemporary cities. I begin with an analysis of the social participation in the arts and cultural productions. The method applied is based upon the conception of capabilities, underlying the idea of the Human Development Index; an analysis of the available cultural statistics, as well as a study of two revealing case studies, that of Bilbao, Spain, and Santa Fe, New Mexico, US, as distinct and alternative examples of the employment of arts as a stimulus for the urban growth and regeneration. The findings suggest that the current urban policies are not conducive to an equal access to the arts of the urban dwellers. The proposed explanation of this phenomenon is based upon my own perspective of the political aesthetics, which includes, inter alia, the concepts of the public agoraphobia, commodification and interpassivity. I then proceed to make a more general point about the unavoidability (and ingenuity) of the urban social engineering, but at the same time I stress the limits of its effectiveness in contemporary large metropolises. In conclusion I argue in favour of the citizens' participative approach in the urban social life, and formulate a policy recommendation according to which small and medium-sized cities are possibly better suited to satisfy the need for the enjoyment of the arts in a more egalitarian way.

The Arts and Capabilities

Cities have always been a natural environment for the development and enjoyment of the arts. Despite that, the debate on the role of the arts, cultural productions and creative classes in the development of contemporary cities is relatively recent. Moreover, the participants in the debate perceive them, most of the time, as an important extra-economic factor, significantly contributing to their growth, rather than as goods in themselves, endowed with an autotelic status.[1]

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[1] *Cf.* R.L. Florida, *The Rise of the Creative Class: and How It Is Transforming Work, Leisure, Community and Everyday Life*, New York 2002; R.L. Florida, *Cities and the Creative Class*, London 2005. *Unlocking the potential of cultural and creative industries*, Brussels 2010.

The researchers in the field of cultural production in the urban settings usually stress the social and economic benefits of both passive and active participation in the arts and cultural events. In this way the contemporary debate on the arts in the urban settings has largely become a part of the neoliberal discourse with its focus on growth, efficiency, and maximalisation of profit, for even the champions of the intrinsic value of the arts cannot escape supporting their arguments by reference to the economic benefits of their use.

It is certainly true that various forms of participation in cultural events are not only providing individuals with pure aesthetic satisfaction. From the point of the individuals, enjoyment of the arts contributes to the educational development and growth of self-confidence, improves social contacts and personal skills, leading in this way to greater employability of the individuals involved and to the cost-effective development of the social capital.[2] From a societal perspective, participation in the arts is conducive to social cohesion through developing mutual understanding across ethnic, racial and religious divisions. It also helps to build appropriate attitudes toward the natural environment and stimulates creativity in the organizational planning, leading thus to a desirable social change. On an administrative and political plane, it offers opportunities to implement urban development strategies. Finally, from a political-aesthetic point of view, it helps to discover and nurture talents in a plethora of the arts and in this way contributes to the cultural and artistic growth of a given community.

The available data demonstrate that, on average, quite a substantial proportion of urban dwellers, in most of the cities in the developed countries, i.e. about 45%, take part in cultural events on a regular basis. However, a much smaller percentage, less than 15% of the urbanites participate in them frequently and very frequently, and even smaller one – about 5–7% – actively pursue their own artistic interests.[3] This is particularly true of the countries of the Central and Eastern Europe. Despite overall economic growth, the countries of the post-socialist region remain relatively poor. The priorities enforced by economic, political and ideological factors have also resulted in deep economic inequalities among their citizens. Economic inequalities translate themselves into social ones, and affect the access to symbolic goods. For example, the unfavourable material situation of Poles relative to other countries of the European Union,[4] in conjunction with their aspirations to enjoy a higher level of material consumption, leads often to the disregard of spirituals goods in their choices. Relatively recent research in Wrocław, Poland's fourth largest city of 640 thousand inhabitants shows that five major social groups are particularly affected by social exclusion from culture. These are (a) young people; (b) seniors; (c) families with many children; (d) people with disabilities; and

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[2] F. Matarasso F., *Use or Ornament? The Social Impact of Participation in the Arts*, Comedia 1997.

[3] *Cultural Statistics* (2011), Eurostat, Publications Office of the Europeans Union, Luxembourg; *Cultural Access and Participation*, Special Eurobarometer 399, Wave EB79.2, TNS Opinion and Social, 2013.

[4] A. Chmielewski, *1989 – Twenty Years After*, [in:] R. Riedel (ed.), *Central Europe. Two Decades After*, Warszawa 2010, pp. 449–455.

(e) some minority ethnic groups[5]. Moreover, the statistics reveal that the average expenditure of Polish citizens on the consumption of cultural goods amounts to the equivalent of 300 euro annually. In this respect Poland is at the bottom of the scale in European Union. The average German spends annually for the same purposes 1500 euros; Czech 700 euros; Slovak 400 euros. One has to stress that most of this expenditure covers the cost of receiving television programmes, which is the most leisure activity for 77% of urbanites. 6 to 7% of the inhabitants of Polish cities often or very often participate in concerts, sports and recreational events; 63 per cent of them participate rarely, never or almost never. 12 per cent often go to the cinema, theatre, galleries and exhibitions; 53 per cent go rarely or never. The national government allocates about 0.6% of the GNP to supporting cultural institutions and cultural programmes, which also places Poland at the bottom of the European Union scale.

To cite another revealing example: as a result of the implementation of comprehensive and sustained cultural urban programmes, like the most prestigious year-long event of the European Capital of Culture sponsored by the bodies of the European Union, the participation in cultural events in the host cities usually rises by approximately 15%, and then drops, although not to the initial level.[6] These data suggest that, even though urban dwellers are able to enjoy the arts and cultural events due to their immediate proximity, they do not take advantage of them as often as one might expect.

It is thus interesting to inquire as to why contemporary Polish urbanites are not very willing to take part in the cultural and artistic productions made available to them. The question is all the more pertinent because many people, when asked for their rationale to move to a city, often mention opportunities to enjoy cultural events offered by local institutions. It is also interesting to ask how the municipalities and urban policy-makers perceive the role of the arts in their city management. There are many possible ways to look at these problems. I shall begin with reference to the increasingly popular capabilities approach.

The concept of capabilities has been developed as a new philosophical and political principle for measuring human well-being, known as the Human Development Index (HDI). It has been expressly formulated as an alternative to the dominant method of measuring the wealth of societies by means of economic indices. Its authors argue that, while human well-being depends to a great extent upon the material status and income of individuals and groups, it cannot be a result of economic factors exclusively. Accordingly, the HDI encompasses both instrumental values, like material income, but also intrinsic ones, such as life expectancy, literacy and education along other factors that are believed to contribute to overall human well-being. This new way of measuring human status and prospects for one's development has been based upon the concept of capabilities put forward by Amartya Sen.[7]

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[5] S. Kłopot, M. Błaszczyk, J. Pluta, *Problemy społeczne w przestrzeni Wrocławia*, vol. I–III, Warszawa 2010; A. Chmielewski *et alii*, *Spaces for Beauty*, Wrocław 2010.

[6] This generalization is based upon assessments conducted by the institutions involved in the organisation of the ECoC events in several cities.

[7] A. Sen, *Inequality Reexamined*, Oxford 1992; A. Sen, *The Idea of Justice*, Cambridge, Mass.

In an attempt to formulate a philosophical exposition of the capabilities approach as an alternative to John Rawls's contractarian view, Martha Nussbaum enumerated ten basic capabilities each human individual is entitled to develop in virtue of his or her being human.[8] One may argue that among those fundamental capabilities pertaining to each human individual discussed by Nussbaum, several if not all are, in various ways and to some degree at least, related to one's opportunities to participate in the cultural life of one's community. For example, one of the capabilities proposed by Nussbaum is

> being able to use the senses, to imagine, think, and reason – and to do these things in a 'truly human' way, a way informed and cultivated by an adequate education, including, but by no means limited to, literacy and basic mathematical and scientific training. Being able to use imagination and thought in connection with experiencing and producing works and events of one's own choice: religious, literary, musical, and so forth. Being able to use one's mind in ways protected by guarantees of freedom of expression with respect to both political and artistic speech and freedom of religious exercise.[9]

This is certainly true also of capability of affiliation which refers to the ability to "live with and toward others, to recognize and show concern for other human beings, to engage in various forms of social interaction to be able to imagine the situation of another", as well as "having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others".[10] Nussbaum stresses also the capability to play, which means "being able to laugh, to play, to enjoy recreational activities",[11] i.e. the capability which is certainly fostered by various forms of participation in cultural life of communities.

Nussbaum's conception has been formulated in order to address the problem of the people living in the conditions of extreme misery in the countries of the Third World, deprived of the opportunities to develop their capabilities, and her aim is to provide a universalistic and egalitarian platform for a new conception of global justice. Sharing her concern for, and indignation at, the condition and prospects of life of the people in poor, exploited and badly managed countries, I think it worthwhile also to pose a question concerning the extent to which the populations inhabiting contemporary cities in the developed countries are given genuine chances to pursue their capabilities through participation in the cultural offer of urban cultural institutions, and how urban management perceives the role

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2009; see also: F. Comim, M. Rqizilbash, S. Alkire (eds.), *The Capability Approach. Concepts, Measures and Applications*, Cambridge 2008.

[8] M.C. Nussbaum, *Beyond the Social Contract: Toward Global Justice.* The Tanner Lectures on Human Values, delivered at Australian National University, Canberra, November 12 and 13, 2002 and at Clare Hall, University of Cambridge, March 5 and 6, 2003.

[9] *Ibidem*, p. 456.

[10] *Ibidem*, p. 457.

[11] *Ibidem*.

of culture and the arts in the growth of their cities. Below, I attempt briefly to shed some light on these problems from the perspective of the political aesthetics.[12]

Political Aesthetics

If one were to explain the above-mentioned rather disappointing level of participation in the arts and culture by urban inhabitants, one should refer to a number of phenomena which inhibit people from taking advantage of the opportunities afforded to them by the urban scene. First of all, it has to be remembered that proximity of the arts does not mean their availability. Most contemporary cities are places of strict social regulations, hierarchies, distinctions and divisions, elaborately diagnosed by Bourdieu in his *Distinction*.[13] From this point of view cities are places of social exclusions which have become the subject of interest of many scholars.

Social stratifications and exclusions in contemporary cities are to a great extent consequences of the economic status of urban dwellers. Their majority cannot afford to take advantage of the cultural offerings of their cities due to economic barriers, which are increased by the growing commodification of the arts and cultural productions, as well as increasing costs involved in enjoying them. For the majority of citizens, access to cultural goods is additionally hampered by the mechanisms of municipal subsidies for cultural productions. Their beneficiaries tend to be members of local elites who, in virtue of their education and material status, are not in need of any additional economic incentives to enjoy the arts, whereas the majority of the citizenry, especially the economically or otherwise disadvantaged, are not among their beneficiaries. As a result, a non-negligible share of the taxes coming from contributions of the lowest income groups is being redirected in order to provide sophisticated entertainment for the elites at the cost of the excluded groups. This widespread mechanism increases the severity of exclusions and contributes significantly to iniquities in many cities.

Yet, this does not account for the fact that the majority of inhabitants do not take advantage of the city's cultural facilities and their offerings, since many of them are available free of charge. Certainly, for some people the opportunity to take advantage of some cultural offerings without charge usually raises doubts as to the value of the offer itself.[14] This may be taken as an indication of the extent to which people's perception of the world, including their symbolic world and their value hierarchies, have themselves undergone the process of commodification. But various forms of the social and economic exclusions are additionally amplified and aggravated by two phenomena which may be seen as two distinct forms of *self*-exclusion. The first of them is an attitude which may be called

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[12] My understanding of the political aesthetics has been outlined in A. Chmielewski, 'Duty and Beauty. Evolutionary Ethics in Relation to the Darwinian Aesthetics', *Studia Philosophica Wratislaviensia. English Edition*, Wrocław 2012; A. Chmielewski *et alii*, *Spaces for Beauty*; A. Chmielewski, *Ostentation and Agoraphobia in the City*, [in:] L. Koczanowicz, K. Liszka (ed.), *Beauty, Responsibility and Power, Ethical and Political Consequences of Pragmatist Aesthetics*, Amsterdam–New York 2014.

[13] P. Bourdieu, *Distinction*, Cambridge 1984.

[14] *Cultural Statistics* 2011, p. 145.

'public agoraphobia'. This attitude grows on the soil of the agonistic, competitive attitudes that are widespread within present social relationships, but it is also reflected with great intensity within the world of artistic culture itself. For its agents, working under the unrelenting – even if often self-imposed – demand for novelty and innovativeness, constantly vie the public attention with an increasing fierceness, not much different in this respect from competition between agents of the post-industrial capitalist market. Another aspect of the same phenomenon, is the fact that they seek – and, indeed, demand – interest and approval for their productions from participants/spectators, who, however, quite often are not prepared for their appreciation in an educational sense. Faced with such demands and offers, many people react with anxiety and refusal rather than the interest which was expected from them. They tend to perceive this aspect of the cultural space of their own city as unwelcoming to their tastes, often feeling that they are being chased away from it, and seek shelter in their privacy, satisfying their cultural needs by means of the television.

Self-exclusion is also propelled by another phenomenon. An increasing number of services depend nowadays upon sophisticated communication technologies, designed to foster and support social interactive exchange. Yet, these technologies generate also attitudes which, paradoxically, increase the level of social exclusion. Apart from creating the digital divide, which is an insurmountable barrier for those unacquainted with cutting-edge technologies, they also encourage a psychological phenomenon which is the reverse of interactivity, namely the interpassivity.[15] This phenomenon causes active and interactive participation in culture, based on personal contact, direct engagement, and self-aware cooperation with others, to be replaced by electronic substitutes which vicariously discharge purposeful human activity for individuals rather than allowing individuals to undertake them for themselves.

Aesthetic Politics

The debate over the role of the arts in urban development is a proper subject not only for the political aesthetics, but also for the aesthetic politics dealing with policies adopted by various municipalities in order to foster the growth of their cities. Aside from the transformation of the city of Paris by Georges-Eugene Hausmann, undoubtedly the most captivating recent example of this is the case of the city of Bilbao in the Basque country in Spain.[16] The city of 356 thousand of inhabitants, Bilbao is the centre of a larger metropolitan area of a million people. Ever since its establishment in 14th century, it has played an important role as a port city for the Spanish crown. Deposits of ore discovered in the region contributed to the richness of the city ever since 16th century. In the 19th and 20th centuries it became an important industrial centre, which attracted many people

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[15] R. Pfaller, 'Interpassivity and Misdemeanors. The Analysis of Ideology and the Žižekian Toolbox', *Ž. International Journal of Zizek Studies* 1 [1] (2007), pp. 33–50; also A. Chmielewski, *Dwie koncepcje jedności*, Wrocław–Bydgoszcz 2006.

[16] The account of the Bilbao effect has been based mainly on B. Plaza, 'The Bilbao Effect', *Museum News* September/October 2007.

and enabled the city to grow in population and land area. However, in the 1980s, due to the Basque nationalist terrorism, increasing demands of the working classes, and the influx of the cheaper immigrant labour, an economic crisis devastated the city. In order to offset the consequences of the arrival of the post-industrial era in the city, its authorities launched the programme of a complete urban renewal.

The primary aim of Bilbao's comprehensive revitalization project was to increase the quality of life of the citizens. This has been achieved by means of several interconnected infrastructural projects. An important part in the process has been played by the construction of the Guggenheim Museum Bilbao. The museum was located in the building designed by a star-architect Frank Gehry. The initial budget for the construction of the building was nearly $119.6 million, yet the total cost of the project before opening in 2007 reached $228.3 million. Altogether, the initial and continuing investments in the Museum, which included the sums spent on purchasing the museum's permanent collection, have amounted to $374 million.

What followed the opening of the Museum has become known as the Bilbao Effect. It has to do largely with the fact that Bilbao, which in 1995 had only 25,000 tourists, in the year 2009, i.e. one and a half years after the opening of the Museum, received about 615,000 tourists. Other calculations show that since the opening of the Museum the city has been receiving an average of 779,028 overnight stays annually and has created 907 new full-time jobs. Guggenheim Museum Bilbao earns around $40 million annually for the city coffers. Despite the huge cost, the city officials, political parties, trade unions and civic associations remain united in a massive urban regeneration.

The urban renewal of the city of Bilbao is often presented as an undisputed success and it has been emulated, with varying degree of success, by other municipalities in the world, especially those motivated to capture international attention and thus to become tourist destinations. What tends to be overlooked, at least among European urban scholars, are other examples of the role of the arts in the municipal policies. Below I would like to describe the case of the American city of Santa Fe, New Mexico, which presents a very different model of urban aesthetic politics. A comparison of the approaches of Bilbao and Santa Fe enables one to put the success of the Basque city in a wider perspective.

One of the slogans advertising Santa Fe says: "The City Different. There are arguably other cities as exotic as Santa Fe. Just not on this continent". Santa Fe is the capital city of the state of New Mexico, known as the Land of Enchantment. It was established by the Spanish colonizers in 1610 on a site inhabited by the Navajo Indians since the 11th century. It is situated 2134 metres (7000 feet) above the sea level in the Sangre de Cristo Mountains, the southernmost chain of the Rocky Mountains, and is surrounded by a landscape which, though barren, is of astounding beauty. In 1848, the territory of New Mexico became a part of the United States. Santa Fe has retained its status of the capital of the state and, from 1850, has been the seat of the bishopric. It has now about 68,000 inhabitants.

Since the 19th century three cultures have merged in the city: the cultures of the native American tribes of Navajo, Apache and Hopi; of the Hispanic colonizers; and of the English American settlers. For several centuries the city barely developed,

for throughout most of its history it did not have much to subsist upon. Water was always scarce there, agriculture was meagre. The architecture of the city consisted of buildings erected of straw and mud formed by hands and left to dry on the sun. In case of heavier rains, which do not happen in this area very often, these constructions were washed away and had to be rebuilt. The railway constructed in New Mexico bypassed Santa Fe and the closest station was located in Lamy, some 20 miles to the south. Due to that, the city lost some of its population. In 1912 it had only five thousand people.

Only in the 19th century was it discovered that the unique climate of the region helps to cure pulmonary diseases. This attracted some Americans to Santa Fe, though the first sanatorium, or sanitarium, was established only in 1903. Also, at the beginning of the 20th century, apart from retirees coming to the city, a number of American artists and writers were attracted to the beauty of the landscapes and exoticism of the local culture. Among several groups which were to leave an indelible mark on the city's future were five painters, two of them of Polish origin, who established the group of *Los Cincos Pintores* and who referred to themselves as "five nuts in the little mud huts".[17] Suffering extreme hardships and winning little recognition, they nevertheless persevered in their devotion to the arts.

Their example has come to play a decisive role in the future development of the city. The strong presence of the visual arts, supported by the local elite, have stimulated local native Americans to engage in the arts as well. Gradually, the native Americans have found in the city a market place for their silver and turquoise jewellery, sculptures, fabrics, etc. The growth of the local craft and arts was boosted by an entrepreneur Fred Harvey, who came up with the then-innovative idea of providing the travellers on the Santa Fe Rail with fresh and edible food, as well as other services, which soon included hotels in which Santa Fe artworks were on sale. Gradually, some of the native Americans painters, like Richard C. Gorman, a Navajo, rose to international prominence. Their work attracted many other artists; among them was Georgia O'Keeffe. The Rabelais Club, or "The Rabble Club", established more or less at the same time, was a group of poets who contributed to the promotion of the city among the American readers and in this way attracted to it more people and other writers, D. H. Lawrence and Willa Cather being the most popular. One of the best Cather's novels, *Death Comes for the Archbishop* (1927) tells the story of the active life of the archbishop of New Mexico Jean-Baptiste Lamy, who erected the Santa Fe cathedral.

What is most striking in the case of the development of Santa Fe is the fact that artists who formed the Old Santa Fe Association had often to resist and to defeat the plan of the rich citizens and of the city authorities to promote "artificial tourism" at the expense of its naturally grown artistic culture. Thanks to them the "mud city" – ridiculed by the champions of the modern style for its adobe constructions – was transformed into a city proud of its blend of tradition and modernity. The local architectural style is a good example of this blend: despite

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[17] L. Dennis, 'Santa Fe', [in:] L. Dennis, L. Dennis, *Santa Fe and Taos. Under a Coyote Moon*, Houston, p. 26.

the ridicule made of mud houses, and attempts to replace them with something more durable, local citizens have managed to make this style obligatory for all structures in the city. Today, even though straw and mud are not used as the construction materials anymore, all buildings, including chain hotels, have to conform to the principles of the style which has become known as the Adobe or Santa Fe Style.

The present state of New Mexico, which consists mostly of the barren desert, has the highest concentration of the Ph.D. holders in the whole United States. Because of the city's proximity to Los Alamos National Laboratory, 45 miles away from Santa Fe, scientific research plays an important role in the development of the city. The Los Alamos Laboratory conducts research on defence-related projects, as well as energy production and health, safety, and environmental issues. A third of Los Alamos employees live in Santa Fe, and several research-related firms and high-technology spin-off companies are located in Santa Fe.

For several decades now Santa Fe, "the City Different", has been one of the most important centres of art in the US, following closely cities like New York City and Los Angeles, and sometimes being listed as *the* main cultural and tourist centre in the US. In 2004 the city was ranked second only to San Francisco as the best travel destination in the country. It has now more than 250 galleries displaying and offering the highest quality painting and other art. It has also several museums and a famous opera. It is a place of several annual festivals, including the Santa Fe Fiesta, established in 1919, and the Southwest Indian Fair, the so-called Indian Market operating ever since 1922. Santa Fe receives an average of 1.6 million visitors annually. The city's industry, significantly boosted by tourism, earns for the city more than $1 billion annually.

The Urban Social Engineering

I have dwelt on these two examples of the role of the arts in the urban development, of which the case of Santa Fe is perhaps less widely known and certainly less discussed than that of Bilbao, in order to make a rather obvious point: all cities are centres of active engineering. For life in the city is made possible by all sorts of innovative engineering devices and techniques, ubiquitous in each aspect of urban space. Indeed, cities themselves are effects of multifarious technical engineering projects, large and small; their buildings, roads, streets, bridges, etc. More importantly, however, cities are also an embodiment of another, more comprehensive kind of engineering, which may be called 'urban social engineering'. By this I do not mean something obvious like designing, constructing and maintaining the public utilities, which, with varying success, is being done by each municipality and its services. By urban social engineering I mean, rather, the design, construction, maintenance and reconstruction of the social structure of the cities.

One has to stress that urban social engineering is very often a natural result of the urban infrastructural engineering, and, naturally, vice versa. Indeed, all utopian writings were blueprints of ideal cities in which the urban design safeguarded both their citizens' material affluence as well as their happiness, while their adequate moral upbringing was seen as a precondition of their political abil-

ities and material well-being. In practice this interdependence is exemplified by the work of Georges-Eugene Haussmann in Paris in the second half of the 19th century. An attempt in this direction may also be found indeed in the case of Amado Lázaro, who in 1861 proposed a reconstruction of Bilbao, yet his project was rejected by the city authorities as utopian and overly expensive. Another, much underestimated and still insufficiently explored case of urban social engineering is the complete transformation of the structure of societies in the former communist countries through the construction of huge villages of apartment blocks in most of the cities in this region, which became homes for the working classes, implementing the realist-socialist aims.

It is apparent that urban social engineering may be done essentially in two distinctively different ways: comprehensive or piecemeal; instantaneous or gradual; designed or spontaneous; top-down or bottom-up; utopian or realistic. Most of the cities are unintended consequences of the human need to be together, to protect each other, and to transact with each other. Among the most unique examples of the spontaneous urban social engineering is the case of the city of Siena, with its ancient system of *Contrade* and their elaborate customs which define the social relationships and culture of the city until the present-day. Piecemeal and gradual urban social engineering is an obvious and everyday matter in them. After they have grown into larger structures, partial changes, although necessary, turn out to be insufficient, and they have to undergo a more comprehensive intervention of urban engineering.

Two cities discussed above, Santa Fe and Bilbao, differ so much in many respects that a comparison between them is barely possible. What justifies an attempt to compare them nevertheless is the role of the arts in their respective development. These examples may be seen as representing these two very diverse approaches to culture. The capital city of New Mexico has become prosperous thanks to culture and the arts. It is the most striking and most successful model of the arts as a driving force in the development of a city which came about thanks to the bottom-up action of the people who, in order to achieve their aims, had to oppose frequent attempts to modernize the city by its authorities or its patricians, or both. The case of Bilbao tells a different story. It is an example of an attempt to give a new boost to the city by means of the arts, yet it has been achieved through the top-down action of the city authorities. While in Santa Fe the arts have been and remain the essence of its urban life, in the case of Bilbao, where a spectatorial or indeed ostentatious approach to culture has been adopted, the arts have been treated as a means and an instrument to salvage the city and to achieve an economic improvement.

Crowd management vs. responsive urban citizenship

This point may be reinforced by referring to the distinction between the internal and external goods as developed within the contemporary moral philosophy.[18] One may say that, in the case of Santa Fe, for a significant part of its inhabitants,

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[18] A. MacIntyre, *After Virtue. A Study in Moral Theory*, Notre Dame 2007, p. 187.

at least initially, the goods internal to their artistic practices were much more important than the external goods of public recognition, material remuneration and fame. If the chief aims of the inhabitants were goods of material success, they could have done perhaps better in New York City, Los Angeles, Boston or Chicago, wherefrom some of them actually hailed.

The inhabitants' choice was an existential one. They chose a difficult path to become painters, sculptors, weavers, dancers, singers, and they entered into a rivalry with other members of their artistic communities in order to excel in their practices, and to achieve excellence through innovation and creation, rather than to enrich themselves. They adopted a participative and autotelic approach to culture rather than focusing on material success as their existential priority. But they also involved themselves into the matters of their city in order to shape it in a way which would be conducive to the pursuit of the life they had chosen. It has to be stressed that in the case of their choice, the goods internal to their practices turned out to not to be in conflict with the external ones. For through the excellence attained in their demanding craftsmanship, for the most part, eventually they achieved not only personal satisfaction; material success followed their achievement of the internal goods, even though not immediately. One has to stress also that a reverse relationship does not necessarily hold: a choice in favour of the external goods, and a success in their achievement, rarely helps to attain the goods internal to any practice.

In the case of the two cities selected for a comparison and contrast, the numbers are revealing: Santa Fe, a desert city the size of a fifth of that of Bilbao, with little urban social intervention on the part of the municipal authorities, attracts now 1.6 million tourists and generates an imposing \$US 1 billion annually. Whereas Bilbao, which had undergone a comprehensive and expensive urban engineering project, with huge cost of about \$370 million for one museum only, started to bring about 600 thousand tourists, and the centrepiece of the revitalisation project earns for the city about 40 million US\$ annually.

Naturally, not many people and not many cities are able or can afford to make a choice similar to that of the people of Santa Fe, for whom the participative approach to the arts has been of paramount importance. Due to the present intense growth of contemporary urban centres, they have come to resemble mass societies, in which only the elected, selected, appointed, or indeed self-appointed, few are able to influence the course of the development of their communities. For this reason, the present forms of urban social life do not allow for a responsive urban citizenship to flourish, and often have actually hindered it. Accordingly, urban governance has grown to assume a form of crowd management and control rather than of mutual and responsible concern for the common good of the city and its inhabitants. This, along with the requirements of the distorted democratic urban politics, affects the attitude of both citizens and municipal authorities towards creativity and the arts. The present urban societies tend to be places of continuous mass spectacle, in which inhabitants are expected to play the roles of spectators, and of the spectacle itself, rather than those of its scriptwriters, designers, actors and creators. This generates and indeed assumes an instrumental relation towards

the arts. It not only discourages people from engaging in creativity in whatever form and area, but positively encourages their passive consumption of the arts. It breeds also interpassive relationships, increasingly dominant in present societies, which are closely connected with the commodification of the arts and of culture as a whole. For most of the people living a life in societies shaped in this way, the arts cannot be an essential element of human life or a good in itself. In view of these tendencies and despite insistent calls for creativity and innovation, the arts will remain an elite preoccupation and will increasingly be reduced to an instrumental approach as a source, and an indication, of material success.

Unmanageability

Large cities, metropolises, and larger urban zones have been rightly perceived as the engines of social growth. It seems, however, that due to the uncontrolled and intense rush to strong urban areas and metropolises, they are nowadays becoming increasingly unmanageable. Their unmanageability has many aspects.

Cities are increasingly ridden with great problems and associated dangers of political unmanageability. The municipal elections and day-to-day management of them belie the nature of urban self-government. It seems that the bigger the city is, the less accountable its management becomes. Mayors and city councillors are being elected in a way which has very little to do with democratic process. The lack of an efficient democratic control and transparency of what the city authorities do is works as an invitation to corruption, often eagerly seized by municipal bureaucrats on all sort of levels of the urban decision-making. This is accompanied by the municipal arrogance, cronyism, nepotism and clientelism. Among social consequences of this is the rise of a caste of new urban patricians, living off the commissions of the declaratively self-governing cities. The political elites themselves, supposedly elected in democratic process, are in some cases turning the local self-government into unchecked and wanton local despotisms.

Big cities are also permanently coping with the infrastructural unmanageability. One has to stress that, on the whole, the management of human traffic has worked in most of the cities as an incentive to impressive innovations in the methods of movement of human masses. Nevertheless, the urban innovativeness and development in this respect is, as a rule, desperately lagging behind the already accumulated and constantly growing needs of their inhabitants. It is apparent especially in the case of the satisfaction of the need of mobility: transportation systems, which is a network of the car, train, bus, bike and pedestrian routes, do not cope adequately enough with the rapidly increasing demand for the urban mobility. Similarly, the supply of energy and water, as well as waste and sewage disposal, are major problems for most of the cities, of which the Italian city of Naples is just only one of the most publicised example.

An inevitable cause, and quite often a consequence, of the above is financial unmanageability. Most of the services in the cities have to be financed through incurring increasing amounts of debts; so most of the cities across the world are in an increasingly swelling debt. Being, as a rule, incapable of falling, the pressure to repay their debt does not really work in their case, and they have very limited

abilities to do so. Examples are many: Thilo Sarrazin, former finance senator of Berlin, who in 2002-2009 managed Berlin's debt of 60 billion euro, had said that "If Berlin were a private company, the city would have gone bankrupt long ago".[19] In July 2012 it was announced that ten Italian cities are at the risk of bankruptcy and some municipal services may not be reopen. This not an exception; this is a present rule. The Canadian megacity of Toronto, which is said to have coped with the recent financial crisis much better than US cities, in 2011 has been indebted at the level of 4,4 billion dollars, and its debt is growing. The gravity of this problem, and its global consequences, cannot be underestimated for, as a yet another example shows, Chinese municipalities are now responsible for 25 per cent of their country's overall debt and it is estimated at 13 trillion yuan (ca US$ 2,22 trillion). All this puts a great question mark over the very idea of economic sustainability of urbanism as we have known it for the past several decades.

People are flocking to the cities in order to facilitate mutual exchange of goods, information, meet others, and have fun together. On an existential level, however, one may note that the very numbers of people trying to make their living in metropolises are becoming so great that they themselves are becoming insurmountable obstacles to each other. Due to that, they are not able anymore to help each other in achieving their aims, but rather, increasingly, stand in each other's way in their attempts to fulfil their ambitions. In this way the promise of, and the hope for, recognition, which attracts many people to the city's crowds, is more often frustrated than fulfilled, and they often end up in disregard and obscurity.

For these reasons large cities, swollen by anonymous crowds, are not only places of great opportunities, unavailable anywhere else. They are also places of extreme stratification of societies living in them, where inequality of the economic and social status reaches unprecedented levels. Living in big cities for the majority of people does not any longer maximise the achieved utilities with a minimum of cost; it rather requires from them maximum of effort and promises often only a minimal satisfaction of needs. As a result, contemporary large cities are *loci* of social exclusions. According to Eurostat, major cities in most of the European Union countries report higher or significantly higher percentage of the unemployment than the overall unemployment in particular countries, with several noble exceptions like Norway or Estonia. In no other places segregation of large strata of people is deeper than in post-modern metropolises.

People attracted to metropolises by the hope for increased consumption of goods are themselves consumed by increasingly ruthless mechanisms of the often erratic urban systems. While craving for imaginary success, whose image is usually being built upon ideological visions ruthlessly propagated by contemporary media, in tangible reality they are forced to perform sometimes degrading, frequently humiliating, and often pointless jobs. Annette Bernhardt of National Employment Law Project has found out that most of the job losses which occurred in the period from 2008 to early 2010 in the US, affected the people in middle-income category, i.e. it affected jobs paying from $14 to $21 an hour. When the number of jobs

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[19] http://www.dw.de/dw/article/0,,1983556,00.html, accessed Jan. 6, 2015.

increased, only 20 per cent of the jobs created were paying in this range: most of the newly employed had to satisfy themselves with jobs paying at the level of $7.70 to $13.80 an hour.

Big cities are also increasingly divided into sectors and zones which inhibit relationships between their inhabitants. One of many aspects of this is fencing off of the private and public properties. Also, the public space in the cities is being privatised by those who can afford to buy a larger share in it. In this way the results of the common effort of the citizens is being commodified and acquired by those who can afford it. This does actively inhibit civic activities of the inhabitants of big cities.

Among attractions of living in big cities is the anonymity of individuals among strangers, offered by the spaces of large cites. It is certainly a value sought by some people; for it gives them a sense of freedom from controls and regulations which are in force in smaller, more closely-knit traditional communities.

A reference to Karl Popper's observation may help to explain this point. Popper has outlined the idea of "the abstract society", in which "men practically never meet face to face... in which all business is conducted by individuals in isolation who communicate by typed letters or by telegrams, and who go about in closed motor-cars".[20] Opposing this vision of the abstract society to the concept of "face-to-face society", he criticised the "abstractness" of life in modern societies ideas by saying that

> many people living in modern society [...] have no or extremely few intimate personal contacts, who live in anonymity and isolation, and consequently in unhappiness. For although society has become abstract, the biological make-up of man has not changed much; men have social needs which they cannot satisfy in an abstract society.[21]

Interestingly, Popper wrote these words at the time (in 1945) when there was no Internet nor e-mails yet, which immensely boosted this kind of impersonal, abstract and dehumanised exchange.

Anonymity of life in large cities, in which human relations even between close neighbours are superficial and thin, sometimes releases in them uncontrolled instincts and emotions which consequently lead to grave and perilous anomies. As a result, cities are increasingly becoming not only centres of personal liberation and excitement, but also places of crime, distrust, suspicion, rejection, frustration which sometimes turn into violent anger.

On the other hand, however, the longing for anonymity can no longer be satisfied by the large cities. The increase of crime, which is precisely one of the consequences of the urban anonymity, is forcing the city authorities, as well as managers of private and communally owned properties, to install the elaborate surveillance systems. Capable of monitoring and recording both public and private spaces, such systems are now widely implemented as a means of control of

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[20] K.R. Popper, *The Open Society and its Enemies*, London 1962, vol. I, p.174.
[21] *Ibidem*, 174–175.

the public spaces, housing areas, road traffic, commuter behaviour, and a means of crowd control during mass events such as concerts and sporting events. In consequence the anonymity, as a specific intangible good sought for by many people, is no longer available within the cities, except perhaps in the intimacy of one's private space.

The Urban Agonism

Throughout their history large cities have always been places in which agonistic, rivalrous relationships between individuals developed to a greater extent than the cooperative ones. Especially during the past few decades of the development of the market economy, big cities have become speedways for the particularly intense and much criticised human rat race which dehumanises people and undermines the very rationality which stimulated the process of urbanisation in the first place.

But there is something else. For it seems equally obvious that nowadays cities themselves, across the world, Europe included, in view of the immense problems they are forced to cope with, feel compelled to take part in a headless rat race. Their managements are trying to outsmart each other in various modes and ways of attracting even more inhabitants and tourists. The purpose of these policies had often been to give a boost to the development of a city. And in some cases, like in the above-cited example of the Basque city of Bilbao, seems to have been effective. However, with the increasing emulation of some successful patterns and ideas, their effectiveness diminishes rapidly. The management of big cities is, as a rule, trying to offset the reduced effectiveness of these policies by more or less successful advertising campaigns trying to excite both local patriotism among its population, and wider interest among prospective tourists who are being treated as a source of much needed income to the permanently empty city's coffers. It seems, however, that at present stage this race between the cities is entered not so much in order to develop and enhance the metropolitan livelihood of cities, as to barely sustain it. In some cases the efforts undertaken in this area add to initial problems they were meant to solve. In this way the post-modern metropolises are very often aggravating the very problems they wish to deal with. No wonder, then, that nowadays problems of large cities occupy a lot of public attention.

De-Metropolitanisation?

Aristotle repeatedly stressed the importance of the middle classes for the stable society. As he argued, it is the middle classes which enable the stability of each society and protect it from radicalism of the hungry lower classes and the insatiable greed of the higher ones. He wrote, for example, that the constitution of societal life "based on the middle classes is...most secure";[22] he also believed that an "increase of the middle class...dissolves faction caused by inequality".[23] Following Aristotle's argument, I would like to express the point of this article by saying that it is middle-sized cities, of, say, up to 250,000 inhabitants, that might, should,

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[22] Aristotle, *Politics*, transl. C.D. Reeve, Indianapolis–Cambridge 1998, 1302a13–15

[23] *Ibidem*, 1308b29.

and in many cases already do play a similar stabilizing role for societies at large, fulfilling the very function which, in another context, Aristotle ascribed to middle classes.

The above-mentioned trends and phenomena taken together clearly suggest that a fully human life, cultured and sophisticated, is not available on an equal basis to all citizens of large cities. At the same time, it seems that that communities inhabiting medium-sized, more humane cities, may serve the values of a genuinely civilised life much better and in a more efficient way than the grand and often already unmanageable metropolises. More specifically, it seems as if small and medium-sized cities are more capable of satisfying the natural human need to be with others, while at the same time providing for no less natural needs of sophistication and culture, without falling into the excesses of inequality, anomies and pathologies characteristic of life in large metropolises..

It also seems that a more egalitarian satisfaction of needs of civilised human societies could be made possible to a greater extent in medium-sized cities than in the large ones. I believe that small and medium-sized cities are more capable, or can be made capable, of serving more efficiently the needs of contemporary human beings than large cities. These large cities are engulfed by a fierce competition between themselves, and increasingly monopolise all sorts of services, which for this very reason become scarce or unavailable in smaller urban centres, while they are incapable of granting a more egalitarian access to these services. I also believe that a systemic relocation of these services, especially medical, educational and cultural ones, to smaller towns, might make them available on a more equal and just basis, for in their case the access to them would require less effort and time. In particular, it may be more conducive to turning today's culture of spectacle into the culture of participation, and the civilisation of consumers into the civilisation of creators.[24] In the face of the uncontrollable growth of increasingly unmanageable large cities, the time has come to appreciate medium-sized cities, where deeper human relationships, moderation of morals and closeness to nature are still possible, as a better and more humane way of organising social life. Medium-sized cities might offer a middle way – if not a golden mean – between the dehumanised large cities on the one hand, and the direct and often oppressive controls in the tightly-knit communities, on the other.

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[24] The argument in favour of small cities has been formulated independently from D. Bell, M. Jayne (eds.), *Small Cities. Urban Experience Beyond the Metropolis*, Oxford 2006.

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The Psychoanalytical Interpretations of the Myth

Abstract

Psychoanalysis founded some kind of unique perspective in myth research; there is a lot of contemporary classifications that contain it as meaningful and specific frame of references. Its main assumption is the close relation between myth and unconsciousness; myth is its language. These statements are limitations and advantages of psychoanalytical perspective in the same time: 1. they are called "naturalism", "reductionism", "reductive hermeneutic", "oedipal-ism" (the understanding of myth is reduced to the unconscious processes and to the scenario of Oedipal triangle); 2. psychoanalysis shows the relation between myth and us, the depth of human experiences patterns; myth becomes a true language of human mind. That patterns of experiences and its language were not characteristic of some archaic stages of human mind development but they are always present and form a source of our creativity.

1. General characteristic of unconscious-myth relation in psychoanalysis.

Psychoanalysis was founded on two pillars: hermeneutic (or humanistic) and clinical (Z. Rosińska[1], P. Dybel[2]) and exists between nomothetical and idiographical sciences (P. Kutter[3]); however the value of these divisions is sometimes denied (A. Grünbaum[4]). The hermeneutic pillar consists of its trials to grasp the meaning of symbols and images active in individual and collective mental processes. One of the most important factors in the area of meaning understanding are multiple ways of myth interpretation. It is very characteristic for psychological dimension of the conception that problem of myth appears in massive form however whole theory is not devoted to the history of culture nor civilization. One can ask the reason of such massive form of the myth appearance in psychological conception. Psychoanalytical current itself was not once called as "powerful mythology"

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[1] Z. Rosińska, *Freud*, Warszawa 1993.

[2] P. Dybel, 'Freudowska psychoanaliza jako zamaskowana hermeneutyka, *Colloquia Communia* 3–6 (1989), pp. 61–75.

[3] P. Kutter, *Współczesna psychoanaliza. Psychologia procesów nieświadomych*, Gdańsk 2000.

[4] A. Grünbaum, *Podstawy psychoanalizy. Krytyka filozoficzna*, Kraków 2004.

(L. Wittgenstein) or "seductive mythical alternative" to rational and empirical ethos (F. Crews). These notes are partially grounded in the observation of psychoanalytical interest in myth however they also have deeper causes in the critique of psychoanalytical scientific claims in general.

Myth had one of the most important roles to play in psychoanalytical research of the unconsciousness[5] (unconscious[6]). It is very characteristic for the conception that myth is related to the unconscious – the main difference between psychoanalysis and many schools and methods of myth research. Myth is the expression of hidden dimension of our psyche or organic life processes in the same time. Myth partially presents that what is hidden, the unconscious; it is a way of unconscious manifestation. That is the main factor of its importance for a lot of currents in the psychoanalytical movement. The other is its indication to the anthropological level: if one can find in myth the unconscious pattern, it also means that these patterns are anthropological data; that they are characteristic for human species and not only for the Austrian neurotic type of personality or Swiss psychotic patients.[7] Myth carries its archaic value; if it is based on unconscious pattern also means that myths are archaic and active from remnant times.

The relation between myth and unconscious is the characteristic feature of psychoanalytical school of myth research (M. Lurker[8]). One can recognize that some statement has psychoanalytical origin if myth is understood as related to the unconscious. To understand myth is to understand the unconscious; Freud wrote that it is easier to grasp the language of dreams if we use the language of myth (dreams were also conceived as a manifestation of the unconscious).[9]

2. Freudian grasps.

The relation between myth and the unconscious is seen as close and relatively direct however in lots of different currents is understood in their own specific ways. Freud uses a term "myth" relatively rarely – not as frequently as "unconscious" or "dream"; myth as a myth – primeval form of human culture; certainly the aim remains to conceive the unconscious and myth is one of its "languages".[10] Image and

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[5] M. Obrębska writes that when we would like to indicate Freud's discovery in one word it would be "the unconscious"; M. Obrębska, *W poszukiwaniu ukrytej struktury. Semiotyka wobec problem nieświadomego*, Poznań 2002, p. 44.

[6] In psychoanalysis it was a rule to use the term *unconscious (unbewußte)* in the form of adjective; it comes from german philosophical tradition; however the form *unconsciousness (Unbewußtsein)* is also used. The terms *unterbewußte, Unterbewußtsein (subconscious, subconsciousness)* is practically not present because it can point to "the less valuable than conscious" or to the spatial associations generally.

[7] J. Hilmann, *Le mythe de la psychanalyse*, Paris 2006.

[8] M. Lurker, *Przesłanie symboli w mitach, kulturach i religiach*, Kraków 1994.

[9] S. Freud, *The Theme of Three Caskets (1913)*, [in:] S. Freud, *The Standard Edition of Complete Psychological Works of Sigmund Freud*, J. Strachey (ed.), vol. XII, London 2001 (further on whole series : "*SE*").

[10] In *Letter to dr Friedrich Krauss on* Anthropophyteia (1910) Freud wrote that collection of jokes, dreams, myths and legends are auxiliary ways of investigating the unconscious human mind. Folklore has psychological importance – S. Freud, *SE*, vol. X, p. 234. He repeated in *Preface to Bourke's* Scatalogic Rites of All Nations (1913): psycho-analysis and folklore can teach us to understand human nature – S. Freud, *SE*, vol. XI, p. 336. "Folklore has adopted

imago-symbolic forms are rooted in impulsive representations[11]; without any control of arbitral conscious they will create direct reflects of unconscious processes. Freud's first steps in imago-symbolic creativity of psyche were undertaken very early – in his common with J. Breuer *Studies on Hysteria*.[12] Freud was interested in the interpretation of mnemic symbols of trauma.[13] Some specific symptoms of hysteria, e. g. some olfactory sensations (Lucy R.) are starting points of the analysis. Mnemic symbols leads toward forgotten experiences connected with intensive conflict between affects. That what seems incongruous, idiosyncratic, and incomprehensible today was rooted in real experiences and intense affectivity in objective realm of human interpersonal relation. The language of mnemic symbols is very difficult to understand. They become comprehensible relating them to the first situation they had come from.[14] It is a dark and dense sphere of individual imagery,[15] experiences, biography.[16] From outside perspective *hic et nunc* seems impossible to find meanings of symptoms and its symbolic representations and associations. In the other early published texts Freud concluded that often these are "fragmentary recollections which have remained in the patient's memory from the earliest years of his childhood"[17] and they have pathogenic importance. Mnemic images associate something closely bound with real past experience (some dislocations) but they also relate three dimensions: 1. Psychical significance of events; 2. The experience; 3. The activity of memory. Myth is a language of the unconscious; a lot of various motifs in mnemic symbols and images has close connections with the meanings of myth, legends and fairy tales.[18] Without a knowledge about them, the unconscious remains incomprehensible.

Freud continued that way of understanding in his dream images interpretations. *The Interpretations of Dreams*[19] Freud understood as a insight to the basic sphere of human psyche; the most direct expression in the unconscious are possible to differentiate in spontaneous generated images and acoustical sensations in dreams.

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a quite different method of research, and yet it has reached the same result than psycho-analysis"; *ibidem*, p. 337.

[11] Freud noticed that visual images are the most common in dreams; they are more numerous than words; dream is a system of images rather than a system of language however even gestures in hysteria are manifestation of the unconscious; the last one "speaks more than one dialect" – S. Freud, *The Claims of Psycho-Analysis to Scientific Interest (1913), SE*, vol. XIII, p. 177.

[12] S. Freud, J. Breuer, *Studies on Hysteria (1895/1950), SE*, vol. II.

[13] *Ibidem*, p. 107.

[14] S. Freud, *Notes upon Obsessional Neurosis (1909), SE*, vol. X, p. 186. What seems to be very arbitral product of mind including hallucination also "rests upon laws, which we are only now beginning dimly to suspect" wrote Freud earlier – S. Freud, *Delusions and Dreams in Jensen's* Gradiva *(1907 [1906]), SE*, vol. IX, p. 9.

[15] Freud was – according D. Flader – the discoverer of meaning relations, conflicting structures and principles of human subjectivity; he also proposed new form of human experience understanding not in the perspective of criteria of present coherence but these which refers to the past – D. Flader, *Psychoanaliza z perspektywy działania i języka. Pozycje rewizji modeli teoretycznych Freuda z perspektywy teorii działania i ich opracowania*, Warszawa 2002, pp. 7, 155–156.

[16] J. Derrida called Freudian interpretations – "the whole etiological machinery of psychoanalysis" – J. Derrida, *Archive Fever. A Freudian Impression*, transl. E. Prenovitz, Chicago–London 1996, p. 87.

[17] S. Freud, *Screen Memories (1899), SE*, vol. III, p. 303.

[18] S. Freud, *Dreams in Folklore (1957/1911), SE*, vol. XII.

[19] S. Freud, *The Interpretations of Dreams (1900)*, p. I, II, *SE*, vol. IV, V.

That means the unconscious is seen in its pre-critic, unrestrained, non-arbitral forms of manifestation. Myth remains an instrument of cognition for the meanings of dream imagery.[20] The myth of Oedipus is still the keystone to understand anthropological process of becoming a man; there is no hazard that Freud called the complex using the reference to the myth. The last one justifies anthropological point of view; in Freud's opinion the oedipal triangle is not characteristic only to his patients in Vienna in the last decade of 19th century but to the whole species. The Oedipus myth is a kind of proof that in the remnant times human beings were involved in interpersonal circulation of desires, inhibition and rivalry. The myth has a very specific character to play: to justify a universality of human situation and to express a particular scenario in the process of becoming a man. The destiny of the king Oedipus is very impressive for us because he speaks our own voice; that is the same destiny for him and for us. Fromm notices that Freudian complex is connected rather to the tragedy of Sophocles and not with authentic myth; that's the reason of some specific features of his interpretation; he underlined the wish between a son and his mother however there is no one trace for such a suggestion; on the contrary, there is very clear dimension "father-son" rivalry in patriarchal structure of society.[21]

Freud's defense of universal appearance of the Oedipus complex contained whole particular logic of his anthropology with overwhelming power of drives and impulses as a quintessence of evolutional biological heredity. Myth in its spontaneous way expresses psychological truth in the process of forming a man: he becomes who he is during a struggle between his biological drives, aims of adapting to the natural environment and socially generated inhibition. That is mirrored in Oedipus triangle situation. Myths express human nature with its confrontation with socio-cultural world.

That general confrontation of human internal drives and socio-cultural inhibition is also an axe of dreams. In *The Interpretation of Dreams* Freud tries to grasp a connection between inhibited contents and imago-symbolic representation. The image formation in the mind is unknown; psycho-analysis can only establish a correlation of drives and images. They are not a flux of unconscious life in its primeval form but a representation submerged in outer world observations; thus creative fantasy has always half-internal and half-external sources. Psychoanalytical research is concentrated on its internal sources (signified; *signifié*) using as a tool an external representation, that what is "significance"[22] (*signifiant* in structuralism terms of J. Lacan[23]). Between them act the work of dreams: condensation, dis-

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[20] F. Crews ironically noticed that Freud's sources were more folkloristic than scientific and mingled an existential courage ton and clever rhetoric procedures – F. Crews, *Wojna o pamięć. Spór o dziedzictwo Freuda*, Kraków 2001, p. 39.

[21] E. Fromm, *The Forgotten Language. An Introduction to the Understanding of Dreams, Fairy Tales and Myths (1951)*, New York 1951 (further: "*FL*").

[22] R. Barthes noticed that in psychoanalysis there is a very powerful sphere of signified and weakness of ephemeral significance – R. Barthes, *Mit i znak*, Warszawa 1970. On the contrary J. Lacan observes richness of significance chains in symbolic order – J. Lacan, *Les formations de l'inconscient, Le Séminaire (1957–1958)*, Livre V, Paris 1998.

[23] J. Lacan, *Les formations....*

location (metaphor and metonym in structural interpretation of psychoanalytical terms[24]), symbolization and dramatization. Myth and literature gain the deepest layer of internal life although express it through images. Creative fantasy makes it possible to build a bridge between inner and outer worlds. Psyche has also its two systems: consciousness and unconscious with its characteristic relatively conservative and capsule form ("indestructible", "demonic", "impossible to bridle"[25]). Thus creative fantasy gains the basic form of human situation in the world; fantasy is "faithful" to its deepest, the most internal, most archaic layers. Social history "betrays"[26] our unconscious[27] a lot of times but creative fantasy never fails to conserve the primeval part of it – human beings with their drives, needs and natural tendency to activate them. A man is here conceived as a cluster of drives and symbolic imagination (C. Castoriadis[28]) or as a *home du désir* (P. Ricoeur[29]); a carrier of *zoe*,[30] the simplest form of life.

The confrontation between the primeval flux of drives, socio-cultural inhibition and environment circumstances express itself in nearly iconic, hieroglyphic language of dreams. To understand human psyche we need decipher that language in some form of translation. In Freud's understanding it is not a translation from language of images to language of words but rather from unconscious language of drives-mnemic imagery to conscious cognition instruments unveiling hidden, repressed contents of life experiences what can be understood as a Freudian version of *aletheia*, the gradual way to specific truth of being-in-the-world.[31] Myth is an instrument of understanding as it is universally appeared expression of human situation in the world.

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[24] Before psychoanalysis – D. Danek argued – lots of people behaviors had been understood in only naturalistic frame of references and there had been no perception of semiotic articulation of them; psychoanalysis brings the discovery of semantic "mask-articulation" – D. Danek, *Sztuka rozumienia. Literatura i psychoanaliza*, Warszawa 1997, p. 58. The authoress explains that manifest contain is a vehicle and a screen in the same time of hidden one – *ibidem*, p. 59.

[25] These are the adjectives that Freud often used indicating the unconscious in his *Interpretation of Dreams* and also in many others works; in *The Uncanny* he presented the unconscious as producing the uncanny (*Unheimliche*) effect in literature gained as repressed contains return effect; in "demonological neurosis" – devilish symbolization and imagery – S. Freud, *The Uncanny (1919)*, *SE*, vol. XVII and *The Seventeenth-Century Demonological Neurosis (1923)*, *SE*, vol. XIX.

[26] Extremely clear figure of thought in Marcuse's interpretation of Freudian anthropology – H. Marcuse in *Eros and Civilization*. Also one can read it in the consequences of symbolic and real orders relation in Lacanian and post-lacanian interpretations and applications of Freudian thought – J. Lacan, *Les formations*...or S. Žižek, *Wzniosły obiekt ideologii*, Wrocław 2001.

[27] It is nearly the constant trait in psychoanalytical understanding of culture as repression of libido – in Freud, Roheim, even Marcuse conceptions – P. Szałek, *Lewica Freudowska. Od psychoanalizy do irracjonalizmu*, Łódź 1999.

[28] C. Castoriadis, *Psychoanalysis and Politics*, [in:] M. Munchow, S. Shamadasani (eds.), *Speculations after Freud. Psychoanalysis, Philosophy and Culture*, London–New York 1994.

[29] P. Ricoeur, *De l'interprétation. Essai sur Freud*, Paris 1965.

[30] S. Freud, *Delusions*....

[31] J. Mills, *Toward a Psychoanalytical Conception of Truth*, a presentation in Institute of Philosophy in Wrocław, January 2014. J. Bouveresse trying to present specific character of the unconscious notion in Freudian version writes that the truth about ourselves is to discover not in ego but in aberrations, dreams, caprices, phobias – idem, *Wittgenstein Reads Freud. The Myth of the Unconscious*, transl. C. Cosman, Princeton 1995, p. XI.

Myth is understood by Freud as an instrument to understand the unconscious; in the same time myth itself is a proof of anthropological importance of unconscious layers in the human mind and an expression of human situation in the world, the process of forming a man. The significance of myth is thus one of the central aspects in the whole psychoanalytic project of research, a possibility of its hermeneutic core.

Freud's position in myth research is anthropological and not exclusively psychological; the multidimensional critiques of his position as psychological reductionism (G. Durand,[32] G. Kirk[33]) are not accurate; the unconscious is not a personal repressed space of unwilled memories but a core of biological base in the process of forming a man and has its anthropological importance. Myth is not reduced to personal repressed contents or to collective dream but express the forms of pattern experiences specific to human species, experiences of conflict between natural drives and socio-cultural inhibition which are an axis of culturally transformed life of a man.

3. Jung's archetypal conception of myth.

The heredity of German romanticism and philosophy (conception of F.W.J. Schelling) is the strongest in Jung's thought. He understood the unconscious as a hidden dimension which determinates reality (psychic and beyond-psychic, material) and myth is relatively direct "language" making its manifestation possible. In Freud's thought heredity of romanticism is also present but there are researchers that deny the importance of that influence (J. Derrida,[34] H. Lang[35]); it seems however that it is present but not as important and strong as in Jung's conception case.

Jung noticed mythic-poetical function of the unconscious very early. In 1909 he had written to Freud that without studies on history of cultures one cannot say the last word about neurosis. He had observed the intense activity of that function in phenomenal symptoms of schizophrenic patients in Burghölzli hospital. Monumental, eschatological[36] imagery and pathos of schizophrenic language had to have a strong influence on Jung's idea of nearly automatic generations of powerful quasi-philosophical, quasi-religious character of schizophrenia's imaginative worlds.[37]

Freud had recognized the language of neurosis, Jung tried to grasp the language of psychotic imagery. His first step toward autonomous conception was a text *Symbols of Transformation*[38] which was one of his most "mythological"

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[32] G. Durand, *Wyobraźnia symboliczna*, Warszawa 1986.

[33] G.S. Kirk, *The Nature of Greek Myths*, Harmondsworth–Middlesex 1974.

[34] J. Derrida, *La carte postale de Socrate ŕ Freud et au-delŕ*, Paris 1980.

[35] H. Lang, *Język i nieświadomość. Podstawy teorii psychologicznej Jacquesa Lacana*, Gdańsk 2005.

[36] One of the most important trait in "schizophrenia's metaphysics" – A. Kępiński, *Schizofrenia*, Kraków 1992.

[37] The subject pathology-mythology (even in form of "divinity of pathology") was studied by J. Hillman in his *Re-Visioning Psychology*, New York 1976.

[38] C.G. Jung, *Symbols of Transformation. Analysis on Prelude to Schizophrenia (1912)*, [in:]

works. Jung's point that moved his mythological and literary analysis was the case of schizophrenic patient of Théodore Flournoy. Her visions, poems, delusions were the first factually situated "symptoms" which significance he tried to conceive. Jung built a bridge between symptoms of mental disease, the unconscious functioning assumptions and historic-cultural research on symbols, myths and their meaning.

Jung conceived the unconscious rather in philosophical line heredity than Freudian or psychological ones – the sphere of significance of the notion gradually extended; initially he tried to define it psychologically and psychoanalytically as a hidden inherited sphere of human mind determining whole psyche and its creativity and symptoms; gradually it began to grasp anthropologically understood human species archetypal structures and reached the meaning of hidden process determining reality which penetrates psychic and beyond-psychic, material dimensions. Thus Jung's conception of unconscious embarrassed many dimensions: it is psychologically active hidden sphere of mind determining conscious processes (psychological dimension); its contents are personally grasped during childhood and later experiences yet it is founded on an evolutional basis of inherited archetypal patterns of meaning (psychoanalytical and anthropological dimension); it is a hidden sphere of psychic and beyond-psychic realities determining processes of psychic order of experience (philosophical perspective). There are multiform and multidimensional connections between these perspectives in different Jungian works; sometimes he refers to psychological, sometimes to philosophical, the most often to anthropological perspective. All process of his conception development followed the passage from biological dimension of evolutional instinctive basis with its archetypal structures founded on instincts (archetype[39] as a self-portrait of an instinct; a correlation to biological patterns of behavior) to a hidden sphere of reality with its archetypal and psychoid carriers. One can suspect that with development of unconscious conception his grasp of myth should change in the same time. Myth works on these all dimensions: as a so-called "individual myth" gathering symbolically transformed experiences of individual life experiences connected with half-memorized images penetrating oniric activity of a person and introducing meaning to his actual mental processes. Thus myth has diagnostic yet therapeutic psychological importance. However myth induces deeper layers of specific human experiences and expresses a streaming of self becoming as a central process of hu-

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C.G. Jung, *The Collected Works of C.G. Jung*, London–Princeton 1953–1979, vol. V (further of whole series : "*CW*"; *Symbols*...: "*SP*").

[39] In interpretations of Jung's main category, an archetype, researchers frequently associates it with the notion of *Urbild* coming from German romanticism; in French language it is connected with *images matricielles* (J.J. Wunenburger, *Philosophie des images*, Paris 1997). It is Jung's habit to differentiate trial between an archetype and archetypal, primeval image. In itself an archetype is not able to be represented and it is *facultas praeformandi* – "The archetype in itself is empty and purely formal, nothing but a *facultas praeformandi*, a possibility of representation which is given *a priori*"– C.G. Jung, *The Archetypes and the Collective Unconscious (1934–1954)*, [in:] C.G. Jung, *CW* 9.1, p. 79 (further on that work: "*ACU*"). G. Durand applied Jung' s notion to his conception of general archetypology but defined an archetype as an "affectivo-representative bundle" – G. Durand, *Les structures anthropologiques de l'imaginaire: introduction ŕ l'archétypologie générale*, Paris 1984.

manity with its archetypal inherited supports; with all basic human experiences. That is more fundamental anthropological dimension. Myth also expresses the unknown patterns of the unconscious process development as determining reality and has philosophical meaning. These patterns led to the general insight into dynamic changes of historic-cultural process of development. Jung described its universal appearance in the beginning fragments of *Symbols...*: "The myth is although that, what one of Church Fathers [Vincent of Lerin – I. B.] said about: *Quid ubique, quod semper, quod ad omnium creditum est*, thus a man who lives without a myth or beyond it is an exception".[40] Myth becomes has such importance in Jung's conception that it is possible to say that it is a *condition sine qua non* of collective unconscious assumption.

Jung like Freud applies comparative method which is known from research on mythology and language sciences. The material of the comparison is very rich. Henri F. Ellenberger describes it as "erupting" from the *Symbols of Transformation*. Jung refers to the corpus of Hindu, Greek, Babylonian, Hellenistic mythologies, to mythological structures in the Bible, to mythological layers of philosophical texts with their figures as Nietzschean Zarathustra. That frame of references would be constant in his later works however they will pass to the history of philosophy, to alchemy, gnosis and very particular characters of religious symbolism study. The mythological material can be conceived as one of the most frequent and important to him. Mythology provides the universality of appearance of some motif or image. This universality Jung understood as a confirmation of universal archetypal intra-psychical structures. The similarity of mythological motives and images come from universal structure of psyche which has a character of anthropological datum. The manifestation of the unconscious process development is mythological imagery and so-called primitive mentality – psychology refers to them more often than to any medical principles.[41] The references to *représentations collectives* and the question of primitive mentality are very fruitful. They introduce to his way of understanding social and anthropological dimension. Archetypes are frequently defined as "reminding" *représentations collectives* of French sociology school, M. Mauss and H. Hubert. It introduces the social dimension to Jung's most important category, an archetype. The last one "reminds" of a collectively structured way of world understanding, ordering and reacting yet it is inherited and non-personally acquired. In anthropology the question of *la mentalité pre-logique* existence[42] or pre-logical primeval mind with its operations on collective representations, its *participation mystique* and its grasp of reality as a continuum of spiritual horizon was also a question for Jung quoting Lévy-Bruhl's ideas. In psychoanalytical conception in general this "primeval mind" is understood as unconscious itself but never transgressed by human beings, always active in traditional society and in modern contemporary one.

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[40] C.G. Jung, *SP*, p. 13. "Which everywhere, which always and which by everybody is believed".

[41] C.G. Jung, *On the Psychogenesis of Schizophrenia (1939)*, [in:] C.G. Jung, *CW*, vol. III, p. 249.

[42] L. Lévy-Bruhl, *Czynności umysłowe w społeczeństwach pierwotnych*, transl. B. Szwarcman-Czrnota, Warszawa 1992.

In interpretation of unconscious contents Jung uses two particular methods: *circumambulatio* and *amplificatio*.[43] They both apply comparative connections with associations of interpreted image, motif or symbol. The material is frequently and mainly mythological. Myths let us understand but only in a circular and approximate way; that circular movement to achieve multitude yet defined meanings is the cause that Jung is called "naturally hermeneut".[44] He was conscious an approximates character of historic-cultural symbolic meanings.

Archetypes are basis to symbol and myth formation although they are not myths themselves.[45] Myths can be conceived as development and fabulation of archetypal meanings core. One of the myth cycles that was the most fascinating to psychoanalysts was so-called hero cycle myths. R. Segal noticed that these interpretation of hero myth are the "specialization" of psychoanalysis conceived as some school of myth research.[46] The figure of the hero was interpreted by Rank,[47] Freud,[48] Jung,[49] Fromm,[50] Baudouin[51] and Campbell.[52] These interpretations differ in many aspects however the assumption that myth expresses the unconscious is present as a main assumption in all of them. The figure of hero is conceived as a prototype of human self-portrait as emerged from the unconscious, conflicted with its natural instinctive sphere, building his autonomy in the confrontation with socio-cultural values. "The finest of all symbols is the human figure, conceived as a demon or hero";[53] Jung underlined following L. Froebenius research solar attributes of hero's figure – as a sun man "sets his own courses by immutable laws and, his journey over, sinks into darkness, to rise again in his children and begin the cycle anew".[54] In Jungian current the attention is laid on transgressing instinctive chaotic drives constituting new spiritual dimension of a person as realization of self.

Psychological and anthropological dimensions in the unconscious conceptions implies very clearly the grasp of a man figure and his development to spiritual level of his psyche in this way forming image of half-man, half-god being. Jung many times had interpreted hero myths. He attended to the meaning of heroic

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[43] Amplification in the Jungian psychology dictionary for example is conceived as connected with use of mythical analogies to establish metaphorical contents of dreams – A. Samuels, B. Shorter, F. Plaut, *Krytyczny słownik analizy jungowskiej*, transl. W. Bobecki, L. Zielińska, *s.l.* 1994, p. 31.

[44] J.J. Clarke, *Jung and Eastern Thought. A Dialogue with the Orient*, London 1994.

[45] T. Ochlanowski wrote that in every myth is hidden one or more archetypes. Idem, *Jungowska interpretacja mitu ojca w prozie Brunona Schulza*, Białystok 2001, p. 20.

[46] R. Segal, *Introduction*, [in:] O. Rank, *The Myth of the Birth of the Hero. A Psychological Exploration of Myth*, Baltimore–London 2004.

[47] O. Rank, *The Myth of the Birth...*

[48] Freud interpreted that figure many times; S. Freud, *Moses and Monotheism, SE*, vol. 23.

[49] Jung also paid much attention to the figure of hero – *SP*; *ACU*.

[50] E. Fromm, *To Have or to Be*, New York 1976 (further: "*HB*").

[51] C. Baudouin, *Le Triomphe du héros. Étude psychanalytique sur le mythe du héros et les grandes epopées*, Paris 1952.

[52] J. Campbell, *The Hero with the Thousand Faces*, New York 1956.

[53] C.G. Jung, *SP*, p. 171.

[54] *Ibidem*.

task, the battle with monster, descent to underground world,[55] symbolical experience of death and meaning of sacrifice for development of spiritual level in psyche. The unconscious movement of libido is able to self-perception through images and symbols only.[56] Jung denied the universal appearance of the Oedipus complex in Freudian interpretation as a incest tendency and inhibition; the Sphinx is a therriomorphic representation of libido; it is a warning to a hero – its riddle was a trap but Oedipus overestimated his intellect wanted to solve the riddle only by words; he had to answer it in his acts in Jung's interpretation. It was a *hýbris* of intellect. The myth of Jonah's journey in the whale's body ("Jonah-and-the-whale complex") is more accurate to express human situation in the world. He struggled to deliver from overwhelming power and become an autonomous individual. Figure of a hero indicates transgression from biological, instinctive,[57] compulsive, unconscious form of behavior to self-knowledge, self as a possibility of free choice of existence mode.[58] All process has also philosophical meaning for a process of becoming a man and thus individuation principle active in the whole unconscious development.

Jung underlined the importance of myth in a book which he wrote in cooperation with Karl Kerényi. The last one was very interested in myth and evaluated it very highly as something comparable to nature itself: its depth, its universality.[59] Mythology is the sum of ancient elements describing gods, divine beings, battle of heroes and descent to the hell. It provides our contact with immense realities of the spiritual world. The individual can submerge himself in the basis of his psyche in the reception of myth. Jung added that the very well known trials to understand mythical figures by solar or astral myths failed; mythology is based on human experiences in the world and it is not a trial to understand or revive the natural environment.[60]

Eleazar Mieletinski commented that in that perspective so-called "subconscious" is very weakly referred to the outer world; then myth can be conceived as something only "psychic". In both conception the unconscious is not incapsulated; Freud conceived it as only partially and relatively close system yet having a lot of relations with an outer world; in Jung perspective – "No, the collective unconscious is anything but an incapsuled personal system; it is a sheer objectivity, as wide as the world and open to all the world".[61] In Jungian and Freudian

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[55] Jung conceived it also as a regression "gradual submersion in the abyss of memory" – *ibidem*, p. 407.

[56] *Ibidem*, p. 175.

[57] About instinct Jung wrote: „the instincts in general, which are the vital foundations, the laws governing all life" – C.G. Jung, *SP*, p. 180. During the development of his conception from that point of view about instinctive basis of life Jung had never resigned.

[58] The „mystery" of a hero is "the stock of primordial images which everybody brings in him as his human birthright [...] inborn forms peculiar to the instinct. I have called it "potential" psyche or collective unconscious". The hero is able psychologically to answer on them for reactivation and reorganization of their contents – C.G. Jung, *SP*, p. 408.

[59] C.G. Jung, K. Kerényi, *L'introduction à l'essence de la mythologie. L'enfant divin. La jeune fille divine*, transl. H. E. Medico, Paris 1968, p. 11–13.

[60] *Ibidem*, s. 236.

[61] C.G. Jung, *ACU*, p. 22.

conception understanding of the unconscious is hardly imaginable without myths
– they are really the sources of unique possibility to understand nontransparent
unconscious. Myth is its language, it covers an outer world of nature and social
life; thus myth refers as well to inner as to outer reality as a whole; it avoids that
duality.

4. Fromm – myth and social history

Frommian understanding of the unconscious concept is quite different because
he introduced the socio-historical dimension to it. The unconscious is "social
filter" which denied the entrance for socially not accepted contents; every kind of
social organization creates its own form of repression and shaping its own form
of social character which is its dialogue with evolutional impulsive factors. The
unconscious is thus not a "separate kingdom" crowded by myth-generating forms
of mythical images nor any three dimensional, spatial object. It is understood
functionally. The whole tendency to ontologize is denied. This way myths also
are conceived as an information about human experiences taking place between
anthropological, biological basis of psyche and social unconscious with its forms of
repression. Fromm appreciated Freud as an interpreter of unconscious language yet
he was also one of the most critical to many assumptions of Freud's conception.[62]
Like Freud he noticed that unconscious is autonomous and does not follow the
logical rules, nor temporal and spatial ordering principles and creates the chains
of associations according emotional similarity. So-called "logic" of the unconscious
is a logic of intensity, emotional intensity and similarity.

Fromm underlined a normative character of mental health and had very de-
fined portrait of human self-fulfillment close to the image of a man in humanistic
psychology. It is presented in his vision of a "new man" in new society,[63] his form
of utopian thought.

Myths are remnants of matriarchal form of society organization; following Jo-
hann Bachofen and his conception of *Mutterrecht*[64] Fromm thought that it was
a kind of "forgotten world" in human pre-history and argued that archeological
discovery (Çatalhöyük)[65] was the support of that supposition. Thus myths were
masked quasi-historical information about times that we have no other documents
for apart from archeological reconstructions of Neolithic settlements. For Fromm
it is an essential counter-point to the critique of historical forms of patriarchal so-
cieties – their hierarchic structure and rivalry destroying interpersonal emotional
connections, promoting aggressive, violent streaming for power. The matriarchal
societies according Fromm were peaceful, egalitarian, cooperative, avoided of vi-
olence and exploitation. That ultra-historical struggle between two principles re-
minds a mythical structure thinking in itself. The interpretation of Neolithic settle-

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[62] *Inter alia*: E. Fromm, *The Greatness and Limitations of Freud's Thought*, New York–
Toronto 1980.

[63] E. Fromm, *HB*.

[64] J.J. Bachofen, *Matriarchat*, Warszawa 2008.

[65] E. Fromm, *The Anatomy of Human Destructiveness (1973)*, New York 1973 (further:
"*ALD*").

ments and a figure of woman are idealized yet idealization is a horizon from which critique of contemporary mass society is possible and begin to be very expressive one. Fromm as others members of Frankfurt School, as H. Marcuse, was a radical critic of conformism, mercantilism, uniformity and mental health destruction.[66] Myths were useful instruments indicating the forgotten world of matriarchal social organization in showing the lack of necessity in destructive socio-historical process.

Myths are important indications about matriarchal principle and values. It is also a way the unconscious manifestations: mythical images and symbols constitute forgotten universal "pre-language".[67] That language expresses human experiences in the world and as Lurker said it is transnational and over-ethnic.[68] In Frommian perspective it is an authentic language of the unconscious generating universal (based on anthropological data) symbols that every human being "speaks" yet does not understand. It is not an artificial "code" to be translated but understood. We dream in the same way as people thousands of years before us.[69] Symbolical language is a common trait of the human mind. In an experience of fire warmth inter alia we share the same feelings, emotions and perceptions.

It shows human mind and carnality confronted with the outer world. Thus myth can be conceived as "treasure of wisdom" and exegesis of symbols.[70] Myth also can mingle with ideology and then it is a form of false consciousness. It can produce new form of idolatry generating psychic epidemics but it is also able to form utopia and express idealization possibilities of human mind that can influence social future by shaping an image of social goals.

Mythology has two meanings for Fromm: first, it is a language of unconscious, exegesis of symbols and "treasure of wisdom" about human experiences. Second, it is a form of false consciousness, mingling with ideology and a destructive instrument in social communication. It depends on contexts: in unconscious conception mythology is understood in the first meaning; in the studies of social history area – in the second one.

5. Psychoanalytical perspective in myth research

Psychoanalysis founded some specific perspective in myth research. The main assumption is the close relation between myth and unconsciousness; myth is a language of the unconscious. Myths form comparative material for dreams, symbols, involuntary formed images, fairy tales and legends. These are forms of unconsciousness manifestations. In all of them appear *pars pro toto* and *post hoc ergo*

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[66] The list of criticized phenomena is very long: to have *modus*, manipulative intelligence, atrophy of emotional life, cybernetic, industrial religion, lack of identity, alienation, "schizophrenia with smiling face" – E. Fromm, *HB*.

[67] It was a romanticism supposition that in primeval times functioned some kind of universal pre-language. For Fromm universality here comes from its foundations in anthropological dimension – the specific human experiences in the world; for Fromm it is only universal language of mankind – E. Fromm, *FL*.

[68] M. Lurker, *Przesłanie symboli w mitach...*, p. 53.

[69] E. Fromm, *ALD*.

[70] E. Fromm, *FL*.

propter hoc principles, disorder of spatial and temporal arrangement, emotional intensity of images.

In Freud's line of influence there developed a conception of Otto Rank, Geza Róheim, Karl Abraham, Charles Baudouin. Jung influenced works of Erich Neumann, Károly Kerenyi Joseph Campbell, T. Pearson, even some aspects of Micrea Eliade's or Gaston Bachelard's and Gilbert Durand's works and many others researchers in the domains of myth and symbolical imagination. Not all of them followed every Freudian or Jungian assumptions but they used many instruments of these myth conceptions; even Eliade or Bachelard refer to the conceptions of the unconscious however they understood this notion in their own particular way and it was not the central category of their thoughts.

Psychoanalytical perspective in the myth research was criticized because of naturalism, reductionism, reductive hermeneutic, "oedipal-ism", and the use of a notion of so-called "individual myth".[71] Roger Callois followed the path of critique but he underlined also that psychoanalysis showed how deep the myth is experienced, why it was something alive for us, not only some archaic remnants from immemorial times[72]. It showed myth in the center of functioning of human mind, never gone nor transgressed but always present and ready for its creativity.

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[71] A lot of these accusations were articulated by G. Durand in his *L'imagination symbolique*, Paris 1964.
[72] R. Callois, *Le mythe et l'homme*, Paris 1987.